POLYCOM®

Integrator's Reference Manual for Polycom® HDX™ Systems

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Polycom, Inc.
4750 Willow Road
Pleasanton, CA 94588-2708
USA

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About This Guide

The Integrator's Reference Manual for Polycom HDX Systems is for system integrators who need to configure, customize, manage, and troubleshoot Polycom® HDX systems. The API commands in this guide are only applicable to the Polycom HDX™ 9000 series and Polycom HDX™ 8000 HD systems.

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Room Integration

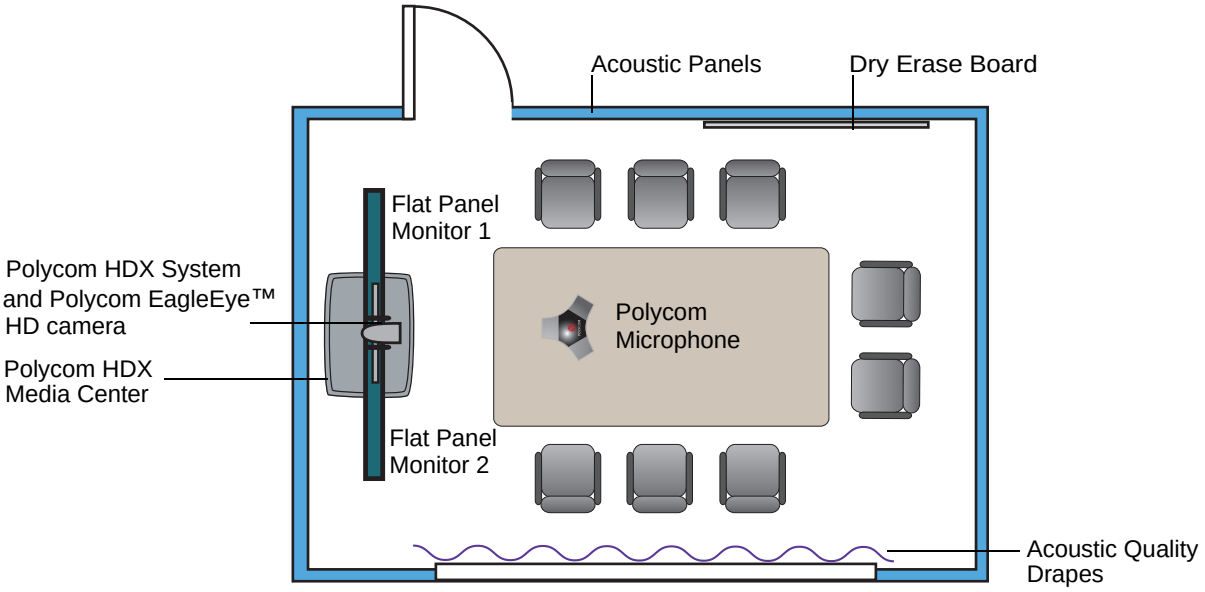
Setting Up a Room for Video Conferencing

For detailed information about setting up a room for video conferencing, refer to Room Design and Layout on page A-1 .

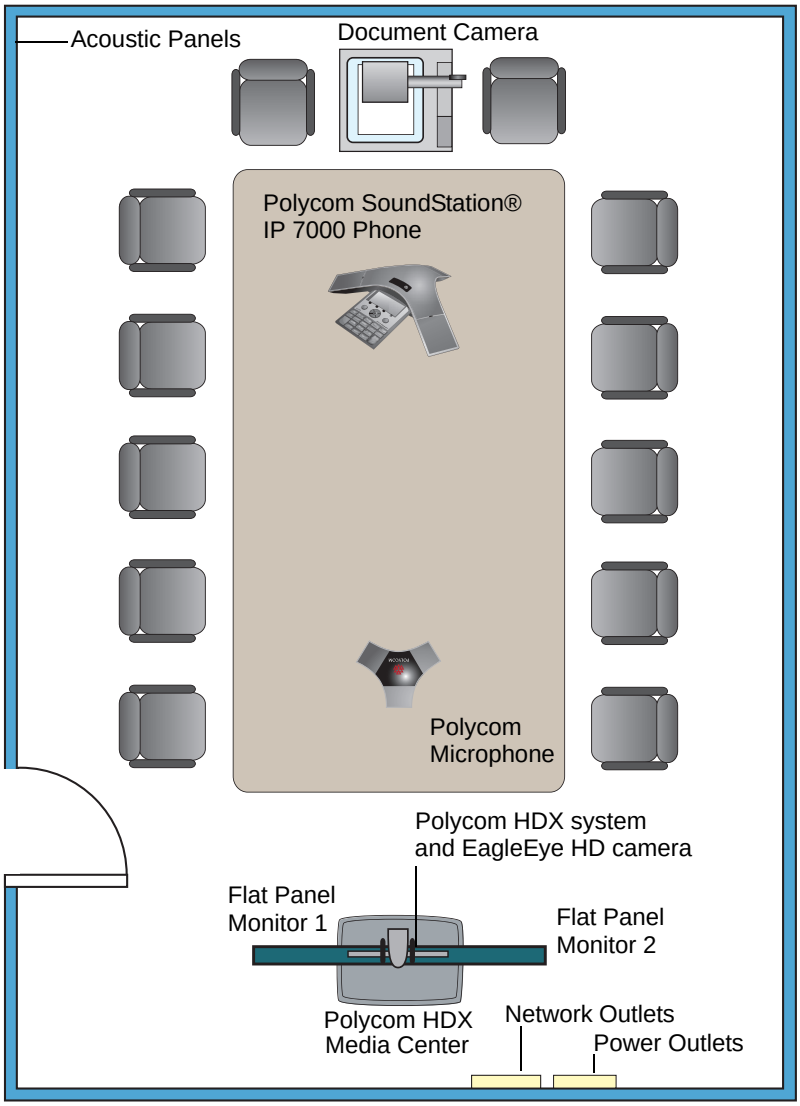
Room Layout Examples

Use the following diagrams as examples for setting up a conference room with Polycom HDX systems. Polycom recommends that you contract an experienced contractor to assure all the components operate as a single cohesive system.

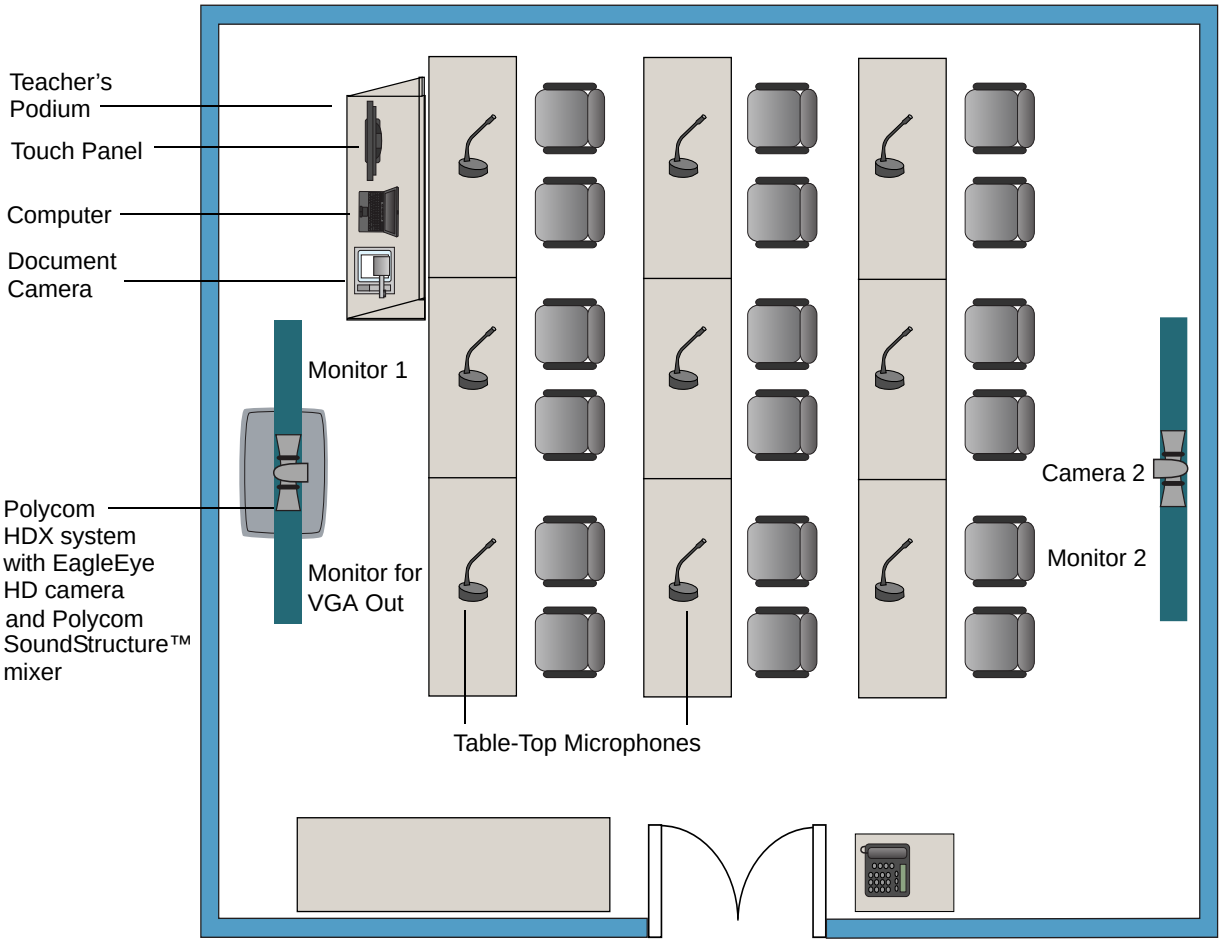
Small Conference Room



Large Conference Room



Classroom

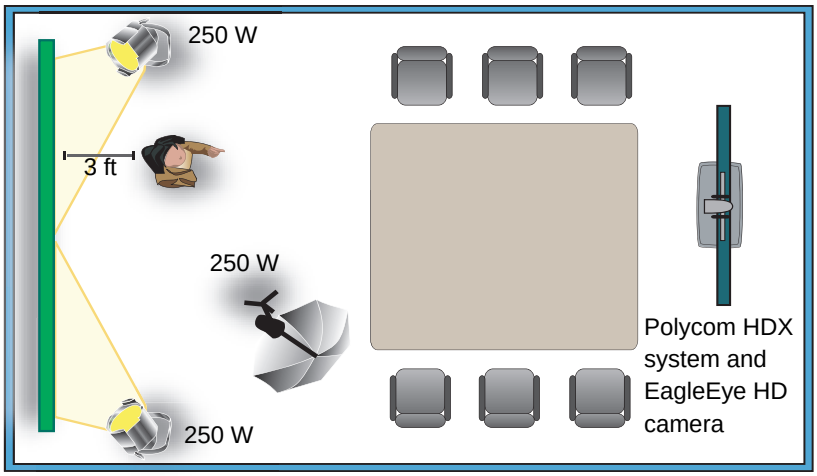


Setting Up the Room for Polycom People On Content™

For the best results, follow these guidelines for setting up Polycom People On Content™:

- Use the Polycom EagleEye™ HD camera with Polycom HDX 9000 series and Polycom HDX 8000 series systems. Polycom recommends using a Polycom EagleEye HD or Polycom EagleEye HD 1080 camera with People on Content. If you are using a Polycom EagleEye 1080 or Polycom EagleEye View camera, activating People on Content automatically reduces the resolution to 720p.
- Create a flat, consistent background color using a screen or matte-finish paint in green or blue. Make sure the background does not have shadows or glare.

- Make sure that the background and the presenter are well lit. For example, use a minimum of two 250 W halogen lights on the background and one on the presenter.
- Experiment with different room and lighting arrangements until the best results are achieved.

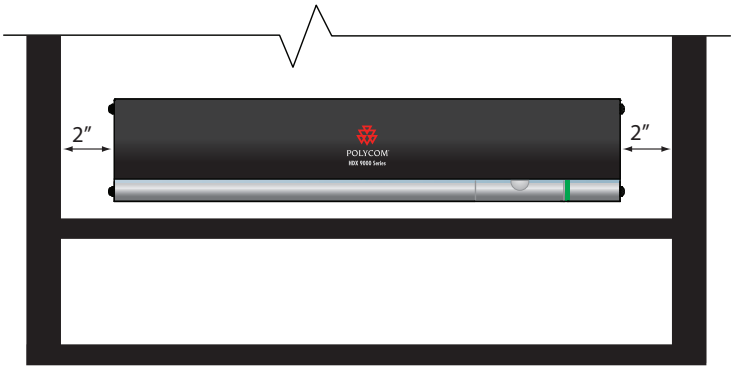


You can find more information about configuring and using People On Content in the *User's Guide for Polycom HDX Systems* and in the Knowledge Base on the Polycom web site.

Polycom HDX Installation Precautions

If you place the Polycom HDX series system in a cart or credenza, ensure that there is proper ventilation for maintaining an ambient temperature of 40°C or lower.

Polycom recommends ventilation gaps of at least 2 inches (50.80 mm) on the left and right of the system with appropriate access to fresh air.



Integrating Video

The following sections describe how to connect cameras to Polycom HDX systems. After you connect a camera to a Polycom HDX system, refer to the Administrator's Guide for Polycom HDX Systems for information about configuring the camera options in the user interface.

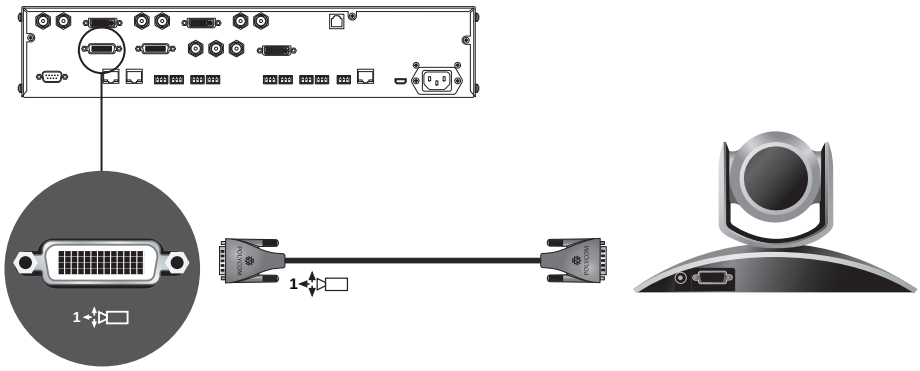
Connecting Polycom Cameras

You can connect Polycom HDX systems to a Polycom EagleEye 1080, Polycom EagleEye HD, Polycom EagleEye View, Polycom PowerCam™, or PowerCam Plus camera from Polycom, or to other supported cameras. Refer to the release notes for the software release installed on the Polycom HDX system for a list of supported PTZ cameras.

Polycom EagleEye HD Camera as the Main Camera up to 30 ft Away

You can connect a Polycom EagleEye HD camera (part number 8200-23600-001 or 8200-23610-001) to a Polycom HDX 9000 Series system as the main camera using:

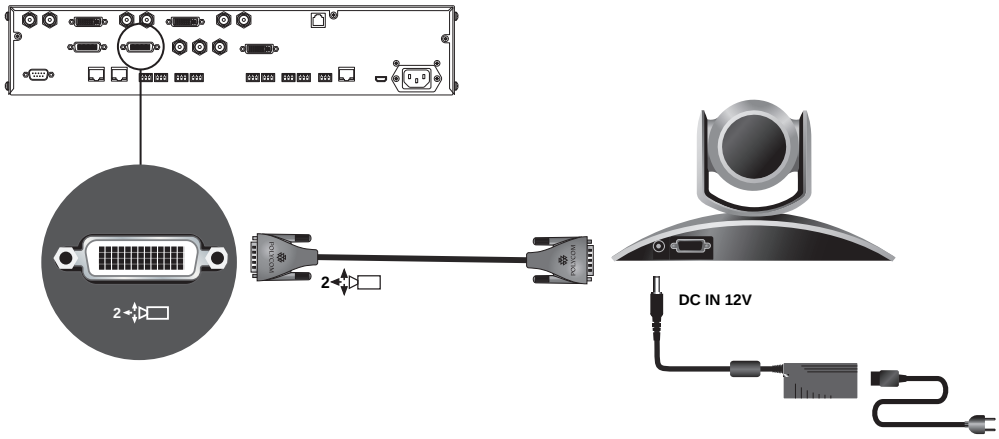
- HDCI Analog Camera Cable on page 2-24



Polycom EagleEye HD Camera as the Second Camera up to 30 ft Away

You can connect a Polycom EagleEye HD camera (part number 8200-23600-001 or 8200-23610-001) to a Polycom HDX 9000 Series system as the second camera using:

- HDCI Analog Camera Cable on page 2-24 .
- Power supply. Use only the approved power supply from Polycom (part number 1465-52621-036). Do not exceed 12 Volts at 3 Amps. Verify the polarity of the power supply as shown on the Polycom camera next to the power supply input.



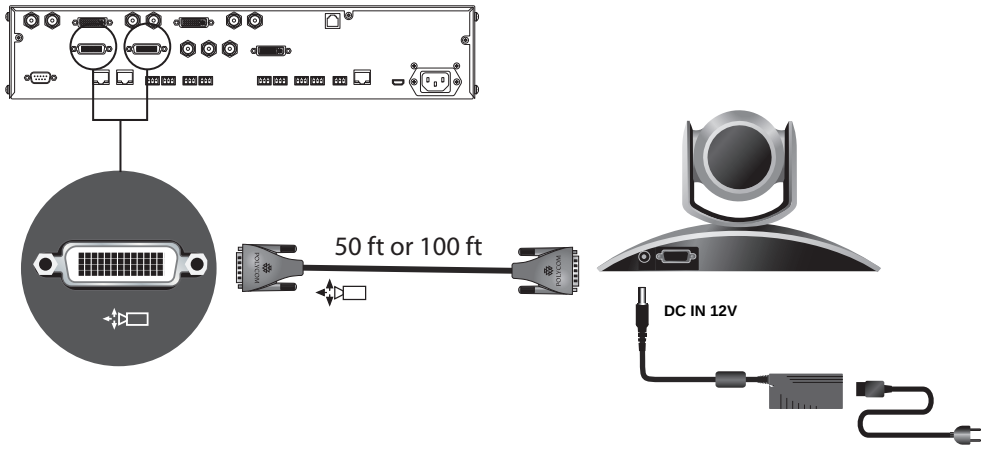
Polycom EagleEye HD Camera as the Main or Second Camera up to 100 ft Away

To connect a Polycom EagleEye HD camera (part number 8200-23600-001 or 8200-23610-001) to a Polycom HDX 9000 Series system more than 30 ft away:

Option 1

- HDCI Analog Camera Cable on page 2-24 .
- Power supply. Use only the approved power supply from Polycom (part number 1465-52621-036). Do not exceed 12 Volts at 3 Amps. Verify the polarity of the power supply as shown on the Polycom camera next to the power supply input.

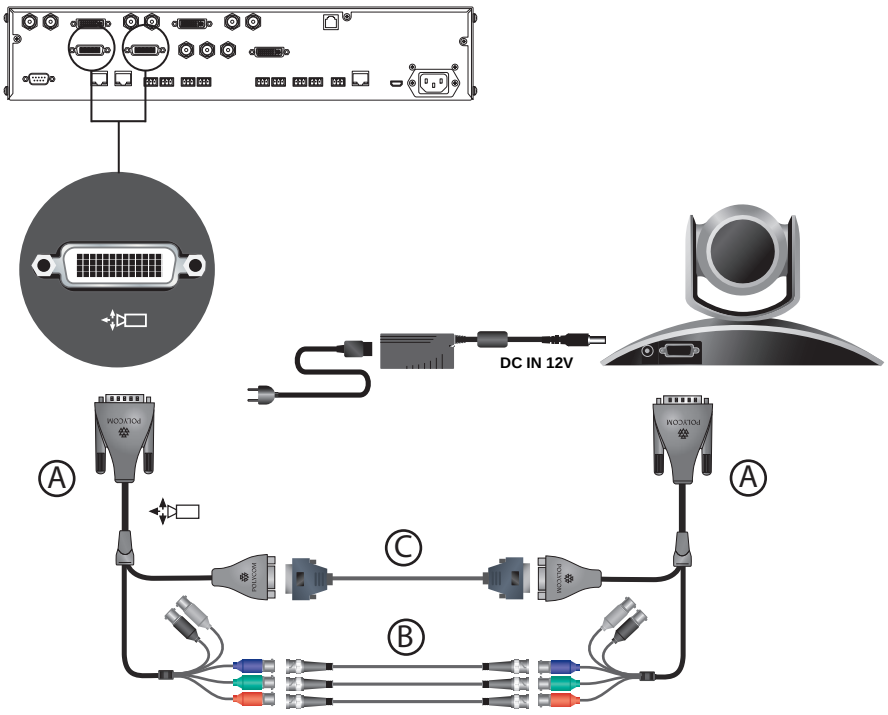
Polycom recommends this configuration when a custom cable length is not required.



Option 2

- A—Two HDCI Camera Break-Out Cable on page 2-26 .
- B—Coaxial analog video cables
- C—DB-9 serial cable
- Power supply. Use only the approved power supply from Polycom (part number 1465-52621-036). Do not exceed 12 Volts at 3 Amps. Verify the polarity of the power supply as shown on the Polycom camera next to the power supply input.

Polycom recommends this configuration when a custom cable length is required. The BNC and serial cables can be built to custom lengths.



Optional, up to 100 ft

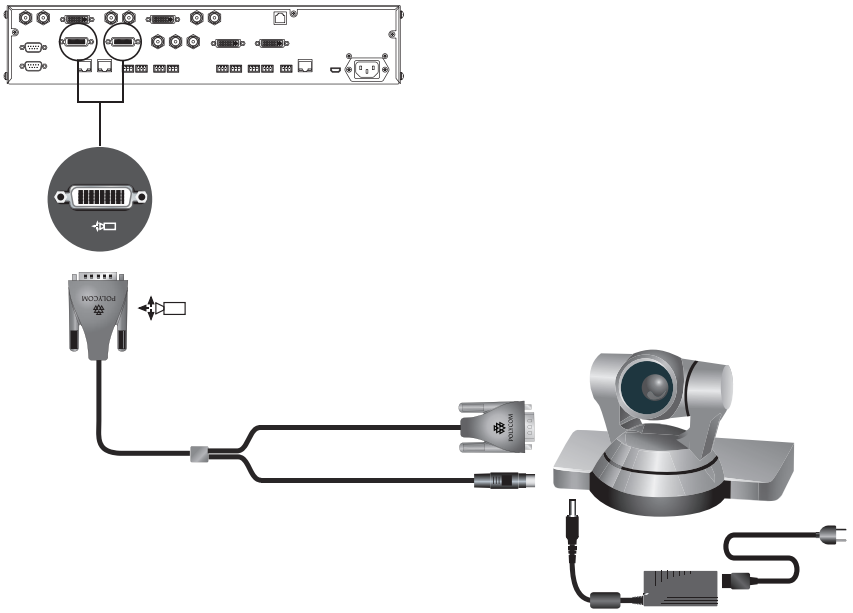
Polycom EagleEye 1080 or Sony EVI-HD1 PTZ as the Main or Second Camera

You can connect a Polycom EagleEye 1080 or Sony EVI-HD1 PTZ camera to a Polycom HDX 9000 Series system as the main or second camera using:

Option 1

- HDCI Polycom EagleEye 1080 Camera Cable on page 2-33 (this cable is compatible with the Sony EVI-HD1 PTZ camera)

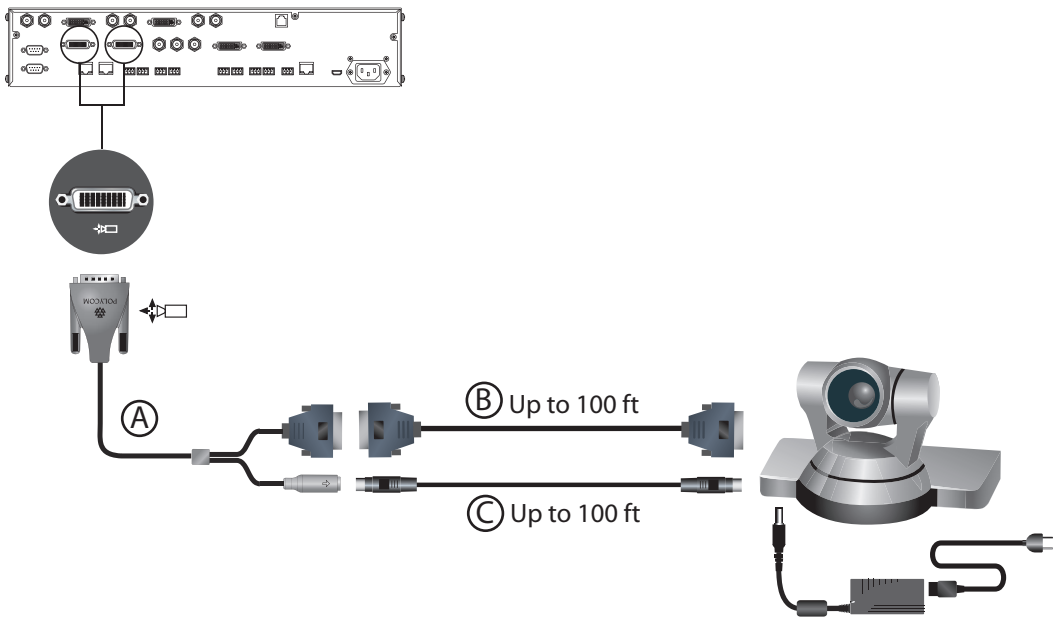
Polycom recommends this configuration when a custom cable length is required.



Option 2

- A—HDCI Sony adapter cable on page HDCI Sony VISCA Adapter Cable on page 2-35 .
- B—VGA cable
- C—VISCA cable

Polycom recommends this configuration when a custom cable length is required.

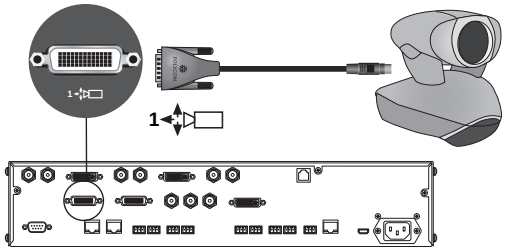


PowerCam as the Main Camera up to 10 ft Away

You can connect a PowerCam (part number 2215-50370-001) to a Polycom HDX 9001, Polycom HDX 9002, or Polycom HDX 9004 system as the main camera up to 10 ft away using:

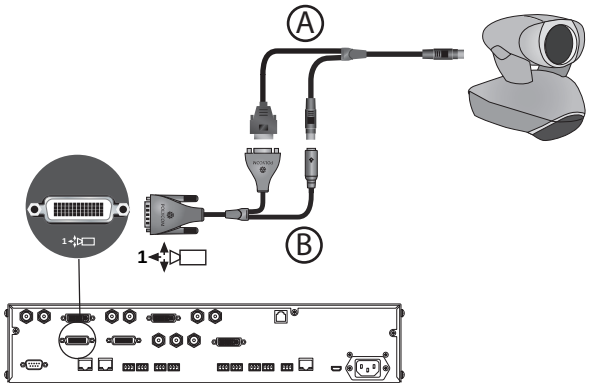
Option 1

- HDCI PowerCam Cable on page 2-30



Option 2

- A — PowerCam Primary Camera Cable on page 2-37
- B — HDCI PowerCam Plus Adapter Cable on page 2-31



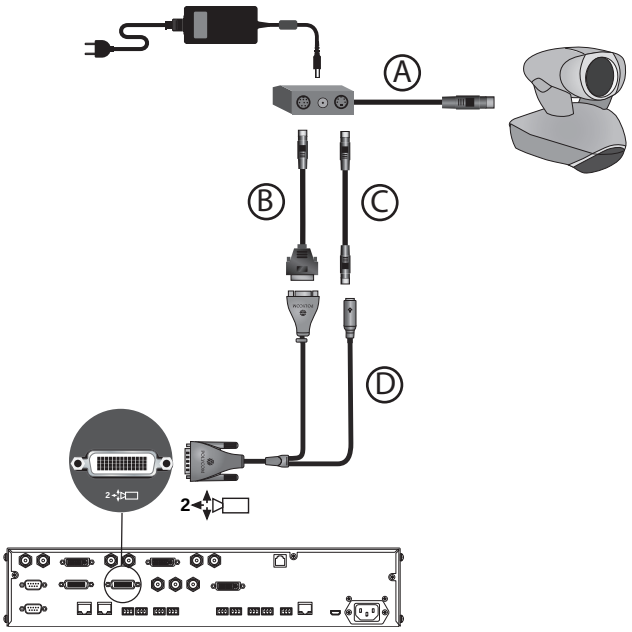
PowerCam as the Second Camera

The following kits are available, which include the power supply, PowerCam Break-Out cable, 8-pin mini-DIN to DB-9 cable, and S-Video cable:

- 7230-22231-001 (50 ft)
- 7230-22232-001 (100 ft)

You can connect a PowerCam (part number 2215-50370-001) to a Polycom HDX 9001, Polycom HDX 9002, or Polycom HDX 9004 system as the second camera using:

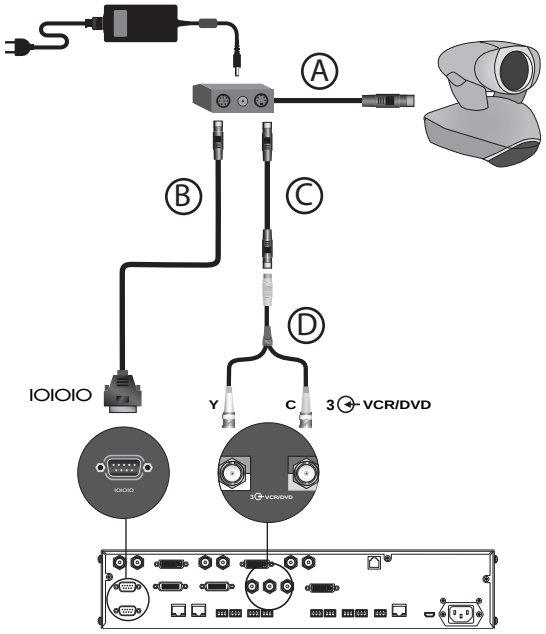
- A — PowerCam Break-Out Cable on page 2-38
- B — 8-pin mini-DIN to DB-9 on page 2-40
- C — S-Video Cable on page 2-14
- D — HDCI PowerCam Plus Adapter Cable on page 2-31
- Power Supply (part number 1465-52621-036)



You can connect a PowerCam (part number 2215-50370-001) to a Polycom HDX 9001, Polycom HDX 9002, or Polycom HDX 9004 system as the third camera using:

- A — PowerCam Break-Out Cable on page 2-38
- B — 8-pin mini-DIN to DB-9 on page 2-40
- C — S-Video Cable on page 2-14

- D—BNC to S-Video Cable on page 2-15
- Power Supply (part number 1465-52621-036)



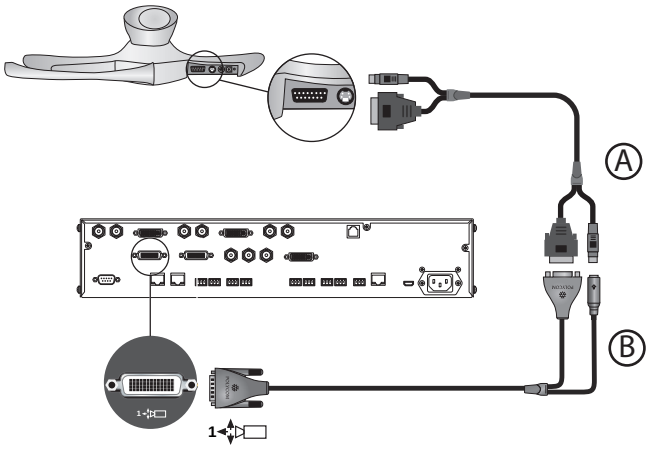
If you connect a PTZ camera to a serial port, set **RS-232 Mode** to **Camera PTZ** on the Serial Ports screen.

PowerCam Plus as the Main Camera up to 10 ft Away

You can connect a PowerCam Plus (part number 2215-50200-001) to a Polycom HDX 9001, Polycom HDX 9002, or Polycom HDX 9004 system as the main camera up to 10 ft away using:

- A — PowerCam Plus Primary Cable on page 2-29
- B — HDCI PowerCam Plus Adapter Cable on page 2-31

Automatic camera tracking is not available when using the PowerCam Plus camera with a Polycom HDX system.

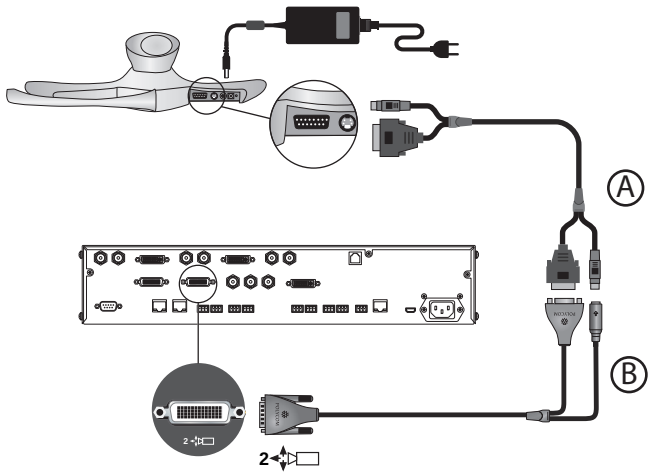


PowerCam Plus as the Second Camera up to 10 ft Away

You can connect a PowerCam Plus (part number 2215-50200-001) to a Polycom HDX 9001, Polycom HDX 9002, or Polycom HDX 9004 system as the second camera up to 10 ft away using:

- A — PowerCam Plus Primary Cable on page 2-29
- B — HDCI PowerCam Plus Adapter Cable on page 2-31
- Power Supply (part number 1465-52621-036)

Automatic camera tracking is not available when using the PowerCam Plus camera with a Polycom HDX system



Connecting Sony and ELMO Cameras

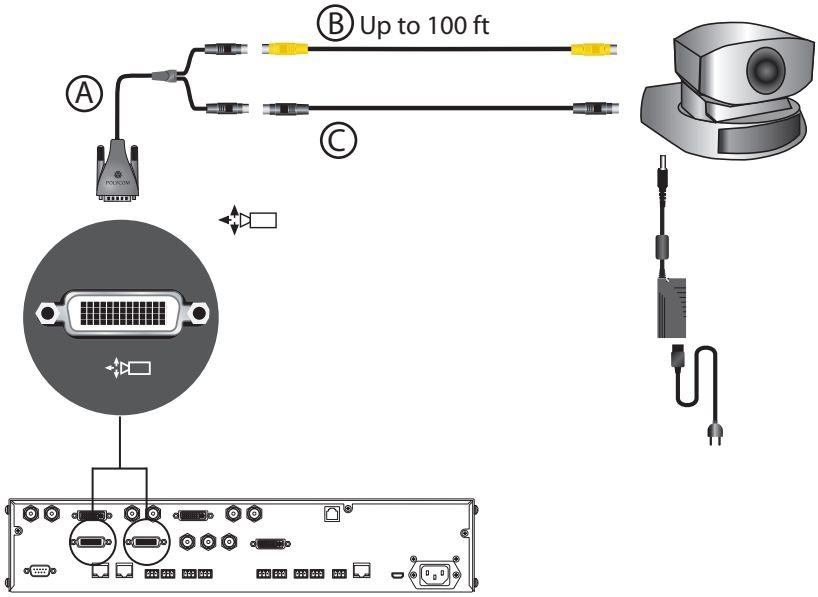
Refer to the release notes for a list of supported Pan/Tilt/Zoom (PTZ) cameras.

Sony or ELMO PTZ as the Main or Second Camera

To connect a Sony or ELMO PTZ camera to a Polycom HDX 9000 Series system as the main or second camera:

You can connect a Sony or ELMO PTZ camera to a Polycom HDX system using:

- A— HDCI Sony VISCA Adapter Cable on page 2-35
- B— S-Video Cable on page 2-14
- C—Sony VISCA cable



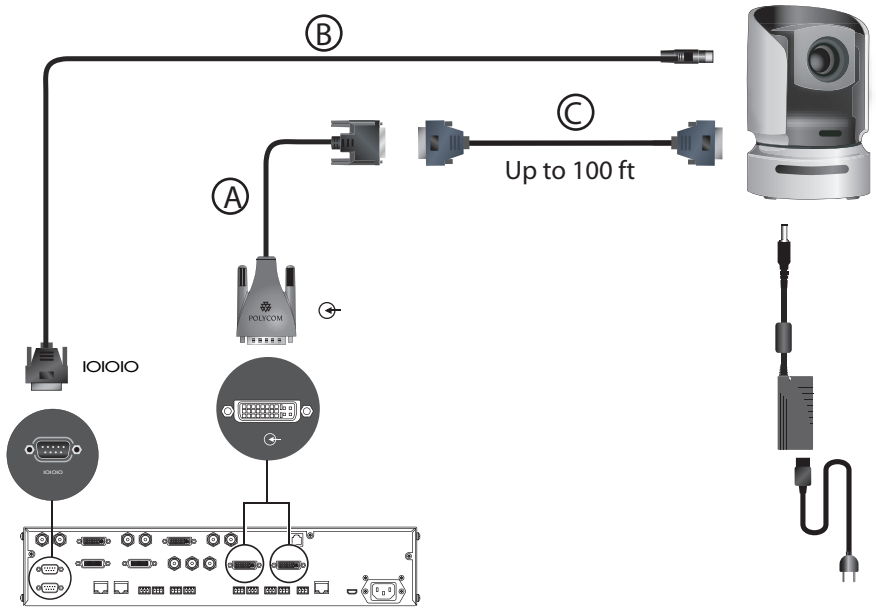
Sony BRC-H700 PTZ

To connect a Sony BRC-H700 PTZ camera to a Polycom HDX 9000 Series system:

You can connect a Sony BRC-H700 PTZ camera to a Polycom HDX system using:

- A— DVI to VGA Monitor Cable on page 2-17
- B— 8-pin mini-DIN to DB-9 on page 2-40
- C—VGA extension cable

To provide XGA output (1024x768), you must install the optional Sony HFBK-XG1 card into the slot on the back of the Sony BRC-H700 PTZ camera.



Another option is to use a VGA cable for cable C and to use a VGA/DVI-A adapter (part number 1517-52689-001) for cable A. The VGA/DVI-A adapter is a solid overmolded adapter that connects to the Polycom HDX 9000 Series system side of cable C and adapts from cable C's VGA connector to a DVI-A connector to plug into the Polycom HDX 9000 Series system.

Connecting Vaddio and Canon Cameras

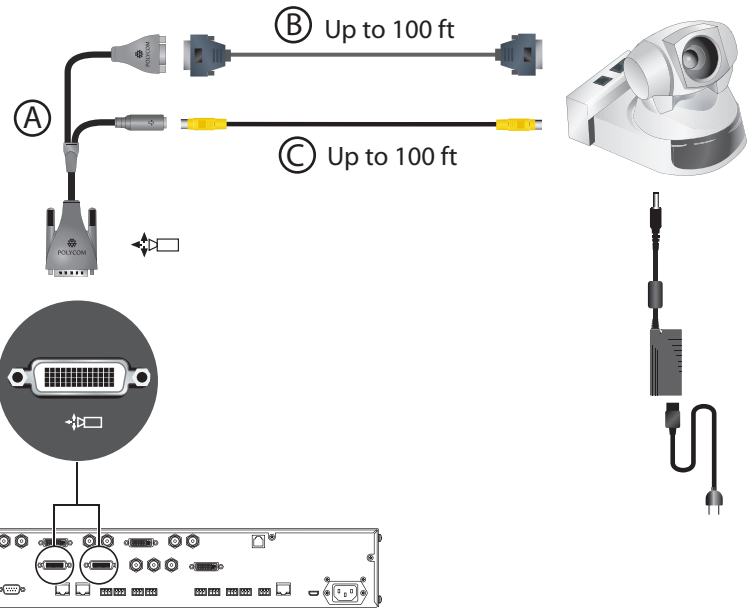
Refer to the release notes for a list of supported Pan/Tilt/Zoom (PTZ) cameras.

Vaddio or Canon PTZ as the Main or Second Camera

To connect a Vaddio or Canon PTZ camera to a Polycom HDX 9000 Series system as the main or second camera:

You can connect a Vaddio 70, Vaddio 100, or Canon (with VISCA cable shoe) PTZ camera to a Polycom HDX system using:

- A — HDCI VISCA Adapter Cable on page 2-32
- B — DB-9 serial cable
- C — S-Video Cable on page 2-14



A separate power supply is required regardless of which connector is used on the HDX 9000 Series back panel.

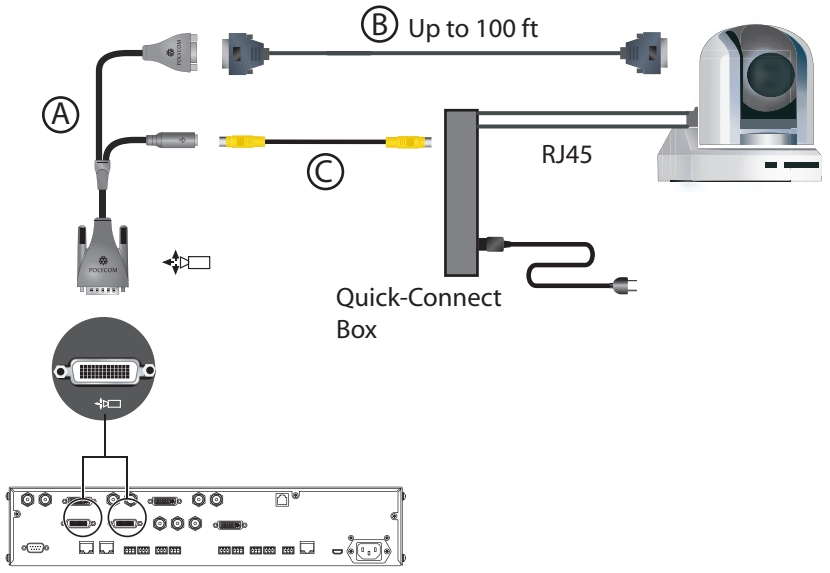
Vaddio 300 PTZ as the Main or Second Camera

To connect a Vaddio 300 PTZ camera to a Polycom HDX 9000 Series system as the main or second camera:

You can connect a Vaddio 300 PTZ camera to a Polycom HDX system using:

- A—HDCI VISCA Adapter Cable on page 2-32
- B—DB-9 serial cable
- C—S-Video Cable on page 2-14

Note: For situations that require extraordinary cable lengths, CAT5 extension kits for camera video, power, and control are available from third-party vendors.



Integrating Audio and Content

Connecting a Computer to a Polycom HDX 9000 Series System

You can connect Polycom HDX™ 9000 series systems to a computer.

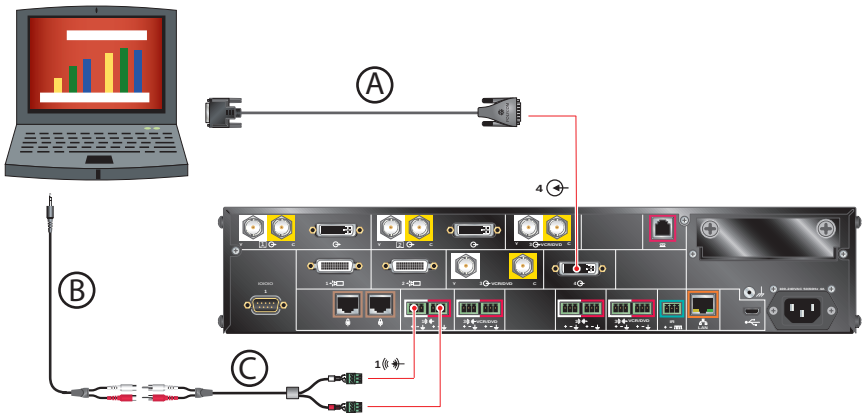
To connect a computer to a Polycom HDX 9001 or Polycom HDX 9002 system:

Option 1

Connect a Polycom HDX™ 9001 or Polycom HDX 9002 system to a computer using

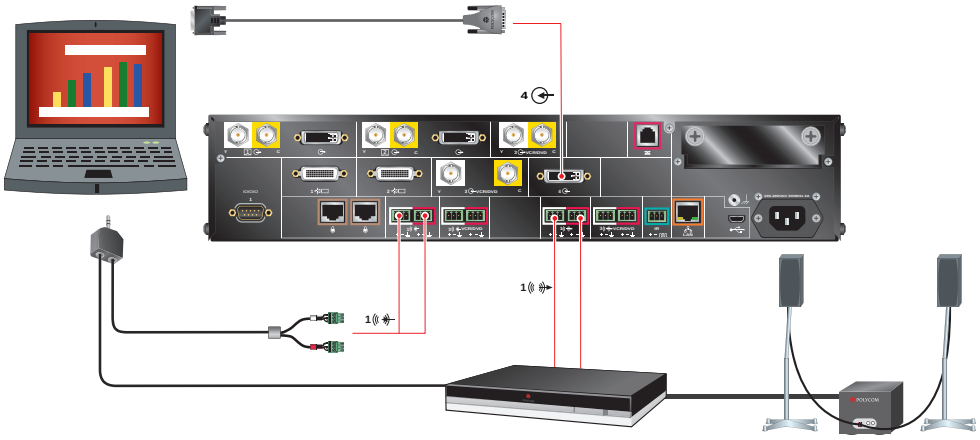
- A—DVI to VGA Monitor Cable on page 2-17
- B—3.5 mm stereo to RCA adapter cable
- C- Audio Adapter Cable on page 2-49

When you connect a computer to a Polycom HDX 9001 or Polycom HDX 9002 as follows, audio is only heard at the far site and may be heard even when video input 4 is not selected.



Option 2

To hear audio at both the near site and the far site, use a bypass mixer to connect a computer to the Polycom HDX 9001 or Polycom HDX 9002 system as the following figure shows.

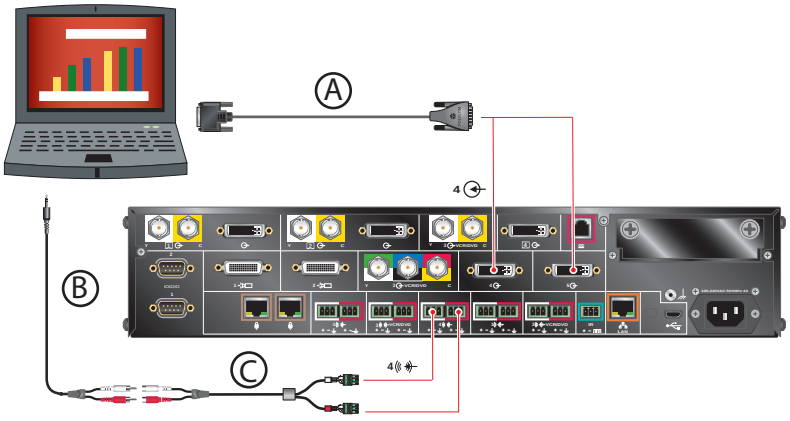


To connect a computer to a Polycom HDX 9004 system:

Connect a Polycom HDX 9004 system to a computer using

- A—DVI to VGA Monitor Cable on page 2-17
- B—3.5 mm stereo to RCA adapter cable
- C- Audio Adapter Cable on page 2-49 (Polycom HDX 9004, Polycom HDX 9002, and Polycom HDX 9001 systems only.)

When you connect a computer to video input 4 and audio input 4 on a Polycom HDX 9004 as follows, audio from input 4 is muted unless video input 4 is selected as a video source.

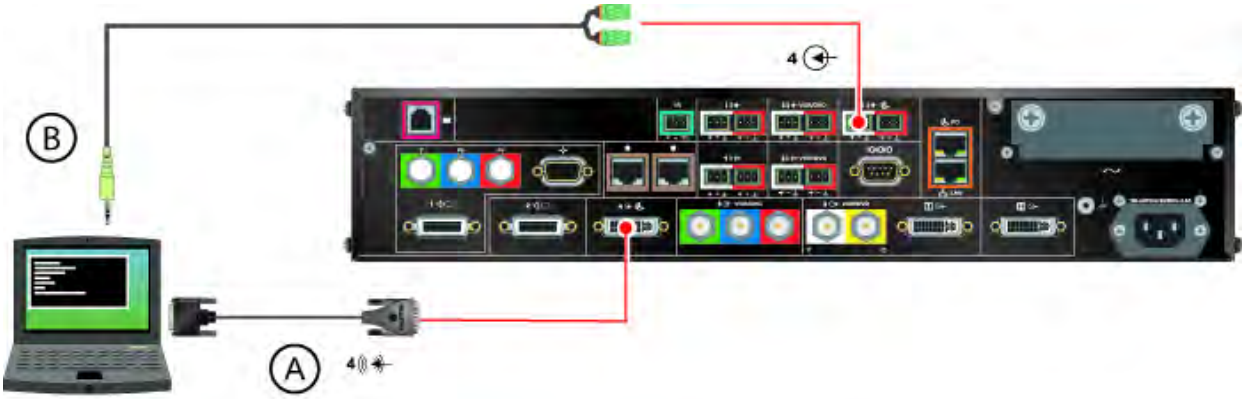


To connect a computer to a Polycom HDX 9006 system:

Connect a Polycom HDX 9006 system to a computer using:

- A—DVI to VGA Monitor Cable on page 2-17
- B—3.5 mm stereo to dual 3-pin Phoenix connectors cable

When you connect a computer to video input 4 and audio input 4 on a Polycom HDX 9006 system as follows, audio from input 4 is muted unless video input 4 is selected as a video source.



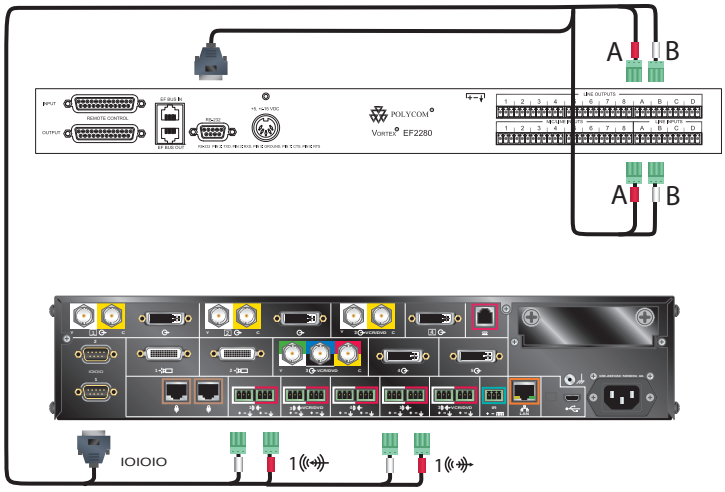
Connecting a Vortex® Mixer to a Polycom HDX 9000 Series System

Polycom strongly recommends using Polycom InstantDesigner™ to get started with your Vortex® mixer integration. InstantDesigner resolves many common issues with connections and configuration settings.

To use a Polycom HDX system with audio input from a Vortex mixer, set the Input Type to Line Input and disable Echo Canceller.

Connect a Polycom HDX system to the Vortex mixer using:

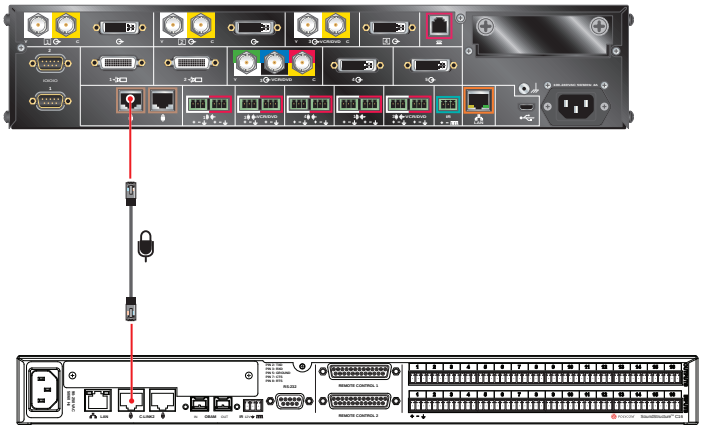
- Vortex cable shown on page Vortex Cable on page 2-51



Connecting a Polycom SoundStructure C-Series Mixer to a Polycom HDX 9000 Series System

Connect a Polycom HDX system to the Polycom SoundStructure C-Series mixer using:

- Polycom HDX Microphone Host Cable on page 2-41



The microphone input of the Polycom HDX 9000 Series system can support one SoundStructure C-Series mixer that has up to four Polycom HDX microphones connected to it. For more information about using the SoundStructure C-Series mixer with a Polycom HDX system, refer to the SoundStructure C-Series documentation on the Polycom web site.

You cannot connect both a SoundStructure C-Series mixer and a SoundStation IP 7000 phone to the Polycom HDX 9000 Series system at the same time.

2

Cables

This chapter includes information about cables that can be used with a Polycom HDX system. Please note that drawings and part numbers are provided for reference only. Compliance information is provided for the Restriction of certain Hazardous Substances Directive (RoHS).

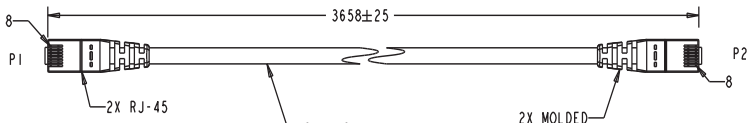
Network Cables

CAT 5e LAN Cable



This cable connects a Polycom HDX system to the LAN. It has orange RJ-45 connectors on both ends. It meets category 5e requirements and is wired according to EIA/TIA-568B. The maximum approved length for this cable is 100 ft (30 m) on an 802 network.

Length	Part Number	RoHS Compliant
12 ft (3.6 m)	2457-23537-001	Yes



WIRING LIST			
P1	P2	T568B Pair	COLOR CODE
1	1	2	WHITE/ORANGE
2	2	2	ORANGE
3	3	3	WHITE/GREEN
4	4	1	BLUE
5	5	1	WHITE/BLUE
6	6	3	GREEN
7	7	4	WHITE/BROWN
8	8	4	BROWN

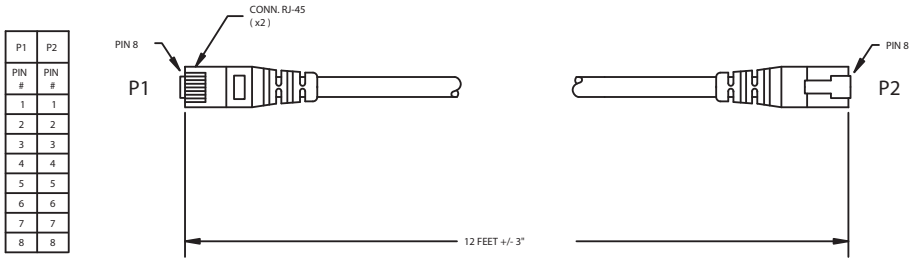
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

LAN Cable



This cable connects a Polycom HDX system to the LAN. It has orange RJ-45 connectors on both ends and is used with all systems. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
12 ft (3.6 m)	2457-08343-001	Yes



Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

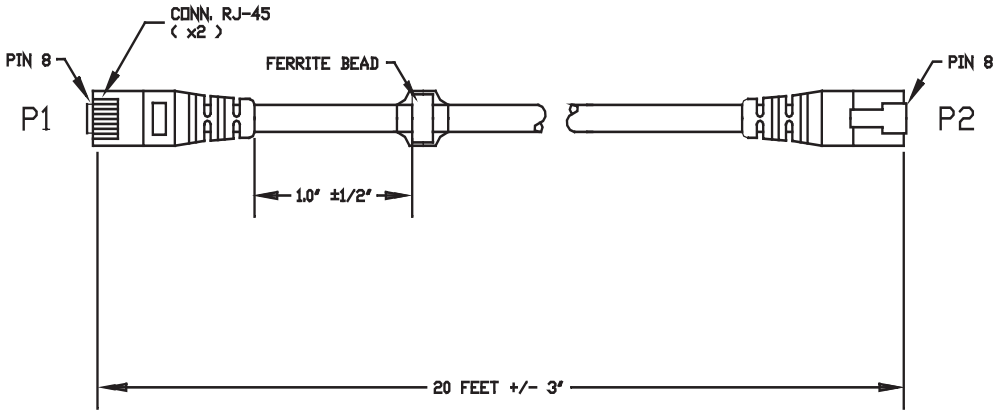
ISDN Cable



This cable connects a Polycom HDX system to a BRI or PRI line. It has clear RJ-45 connectors on both ends and is used with all Polycom HDX systems that have ISDN capability. The maximum approved length for this cable is 50 ft (15 m).

Length	Part Number	RoHS Compliant
20 ft (6.6 m)	2457-08548-001	Yes

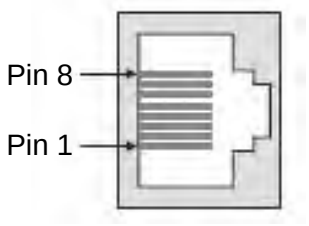
P1 PIN #	P2 PIN #
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8



Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

PRI Pin Assignments

The following illustration and table show the pin assignments for the PRI port on the Polycom HDX system.



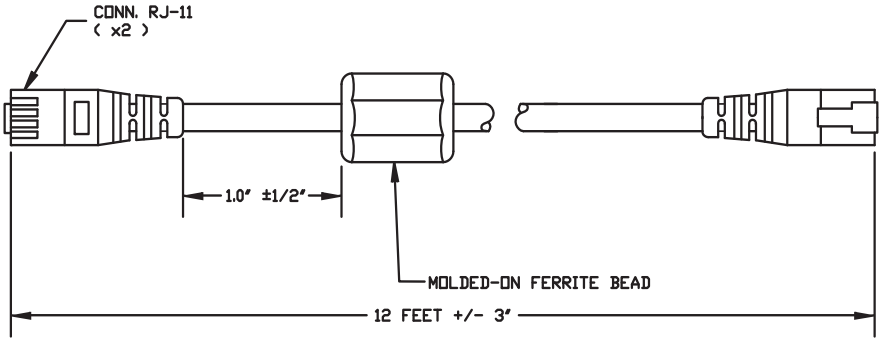
Pin	Signal Name
1	Receive Ring
2	Receive Tip
3	No Connection
4	Transmit Ring
5	Transmit Tip
6	No Connection
7	No Connection
8	No Connection

Analog Telephone (POTS) Cable



This cable connects a Polycom HDX system to an analog telephone line. It has pink RJ-11 connectors on both ends. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
12 ft (3.6 m)	2457-20071-001	Yes



WIRING IS "PIN TO PIN" 1-1, 2-2, ETC.

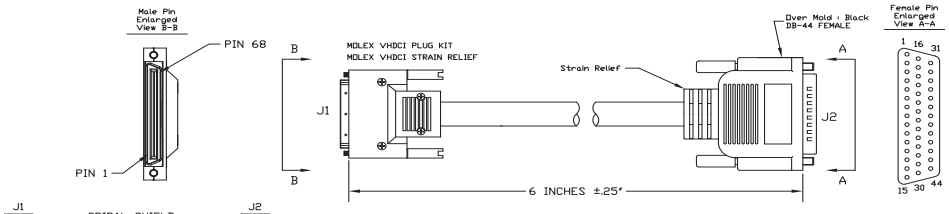
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

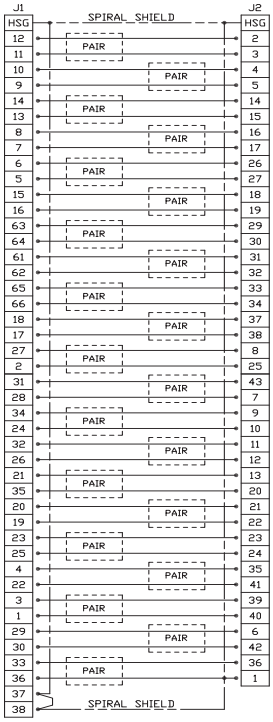
V.35/RS-449/RS-530 Serial Adapter



This adapter is used when connecting a Polycom HDX system to other third-party network equipment. It adapts the 68-pin interface to an industry standard 44-pin interface used by some network interface equipment. It is used with Polycom HDX systems that have a V.35/RS-449/RS-530 serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
6 in (15.23 cm)	2457-21264-200	Yes





Peripheral Link
V.35 HD-68 Pinout

Notes (direction from V.35 module (DTE))

68 pin	Signal Name	Signal Type	From card	Function	V.35	RS530-DB25	RS449-DB37	RS366-DB25
	Shield			V.35/RS449/RS530	A		19	7,18,19#
12	Receive Data A	Differential	in	V.35/RS449/RS530	R	3	6	
11	Receive Data B	Differential	in	V.35/RS449/RS530	T	16	24	
10	Send Timing A	Differential	in	V.35/RS449/RS530	V	15	5	
9	Send Timing B	Differential	in	V.35/RS449/RS530	AA	12	23	
29	Data Set Ready (DSR)	Single Ended	in	V.35	E			
28	Request To Send (RTS)	Single Ended	out	V.35	C			
27	Data Terminal Ready (DTR)	Single Ended	out	V.35	H			
34	Digit Present (DPR)	Single Ended	out	RS366				2
24	Abandon Call/Retry (ACR)	Single Ended	in	RS366				3
32	Call Request (CRQ)	Single Ended	out	RS366				4
26	Present Next Digit (PND)	Single Ended	in	RS366				5
21	Data Line Occupied (DLO)	Single Ended	in	RS366				22
14	Receive Timing A	Differential	in	V.35/RS449/RS530	V	17	8	
13	Receive Timing B	Differential	in	V.35/RS449/RS530	X	9	26	
8	Terminal Timing A	Differential	out	V.35/RS449/RS530	U	24	17	
7	Terminal Timing B	Differential	out	V.35/RS449/RS530	W	11	35	
15	Request To Send (RTS) A	Differential	out	RS449/RS530		4	7	
16	Request To Send (RTS) B	Differential	out	RS449/RS530		19	25	
35**	Receive Common	Gnd		RS449			20	
20	BCD Dial Digit Bit 1 (NB1)	Single Ended	out	RS366				14
19	BCD Dial Digit Bit 2 (NB2)	Single Ended	out	RS366				15
23	BCD Dial Digit Bit 4 (NB4)	Single Ended	out	RS366				16
25	BCD Dial Digit Bit 8 (NB8)	Single Ended	out	RS366				17
2**	Signal Ground	Gnd		V.35/RS366	B			7,18,19
6	Send Data A	Differential	out	V.35/RS449/RS530	P	2	4	
5	Send Data B	Differential	out	V.35/RS449/RS530	S	14	22	
	reserved (Ascend select line)							
63	Clear To Send (CTS) A	Differential	in	RS449/RS530		5	9	
64	Clear To Send (CTS) B	Differential	in	RS449/RS530		13	27	
61	Data Mode (DM-DSR) A	Differential	in	RS449/RS530		6	11	
62	Data Mode (DM-DSR) B	Differential	in	RS449/RS530		22	29	
65	Receiver Ready (RR-DCD) A	Differential	in	RS449/RS530		8	13	
66	Receiver Ready (RR-DCD) B	Differential	in	RS449/RS530		10	31	
4**	Send Common	Gnd		RS530		7	37	
33	Data Carrier Detect (DCD)	Single Ended	in	V.35	F			
18	Terminal Ready (TR-DTR) A	Differential	out	RS449/RS530		20	12	
17	Terminal Ready (TR-DTR) B	Differential	out	RS449/RS530		23	30	
3	V.35 Cable Connected		ground to indicate a V.35 cable is attached					7,18,19*
1	RS449 Cable Connected		ground to indicate a RS449 cable is attached					7,18,19^#
22	Distant Station Connected (DSC)	Single Ended	in	RS366				13
30	Clear To Send (CTS)	Single Ended	in	V.35	D			
31	Ring Indicate (RI) (Incoming Call)	Single Ended	in	V.35/RS449	J		15	
	reserved (Ascend select line)							
68	LOS A	Differential	out	RS530 crypto		18	3	
67	LOS B	Differential	out	RS530 crypto		21	21	

* For V.35, connect pin 3 of 68 pin connector to ground
^For RS449, connect pin 1 of 68 pin connector to ground
#For RS530, connect pins 1 and 3 of 68 pin connector to ground
** Gnd pins are 2,4, 35-60

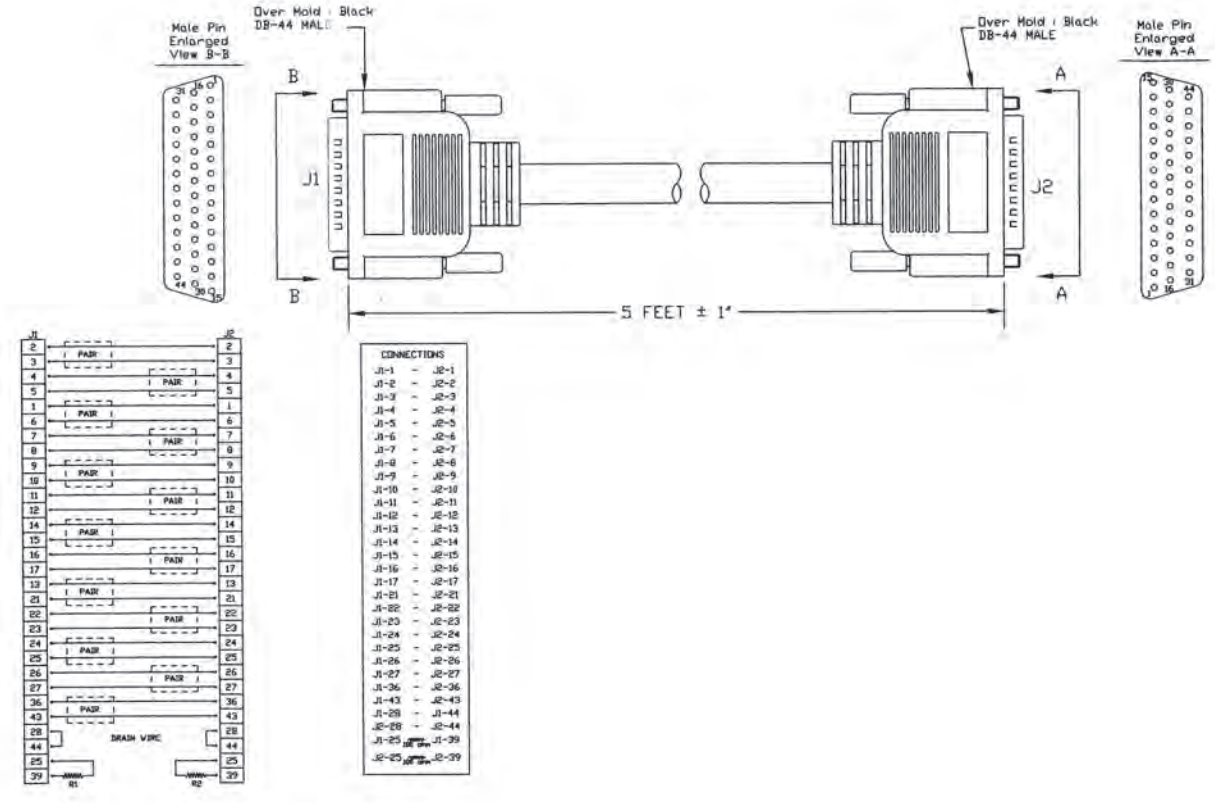
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

V.35 NIC Cable



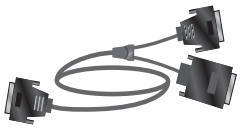
This cable connects a Polycom HDX system to Ascend network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page V.35/RS-449/RS-530 Serial Adapter on page 2-7 to connect to network equipment that has the HD-44 pin interface. It has HD-44 M connectors on both ends and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-10608-200	Yes



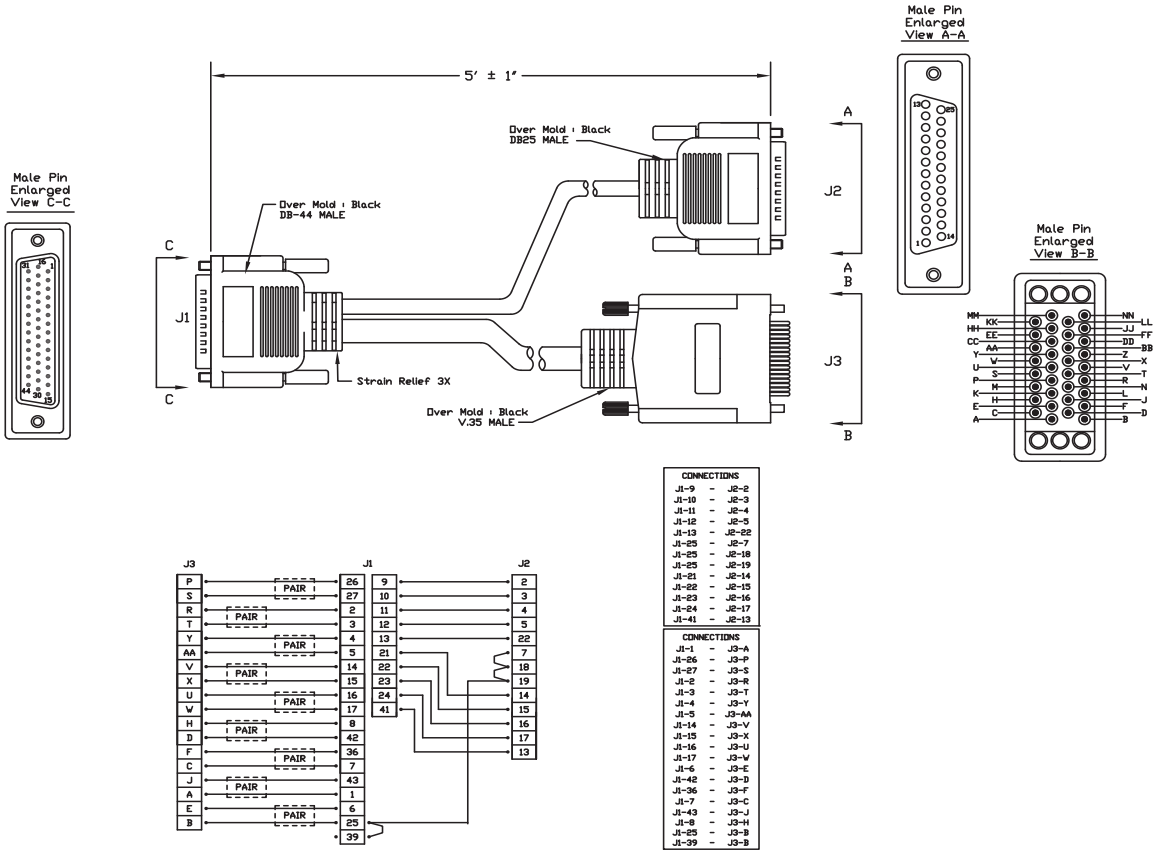
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

V.35 and RS-366 Serial Cable



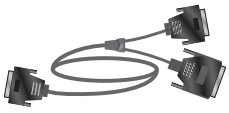
This cable connects a Polycom HDX system to third-party network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page V.35/RS-449/RS-530 Serial Adapter on page 2-7 to connect to network equipment that has a V.35/RS-366 interface. It is HD-44 M to "Y" Winchester 34M/RS-366 DB-25M and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-10609-200	Yes



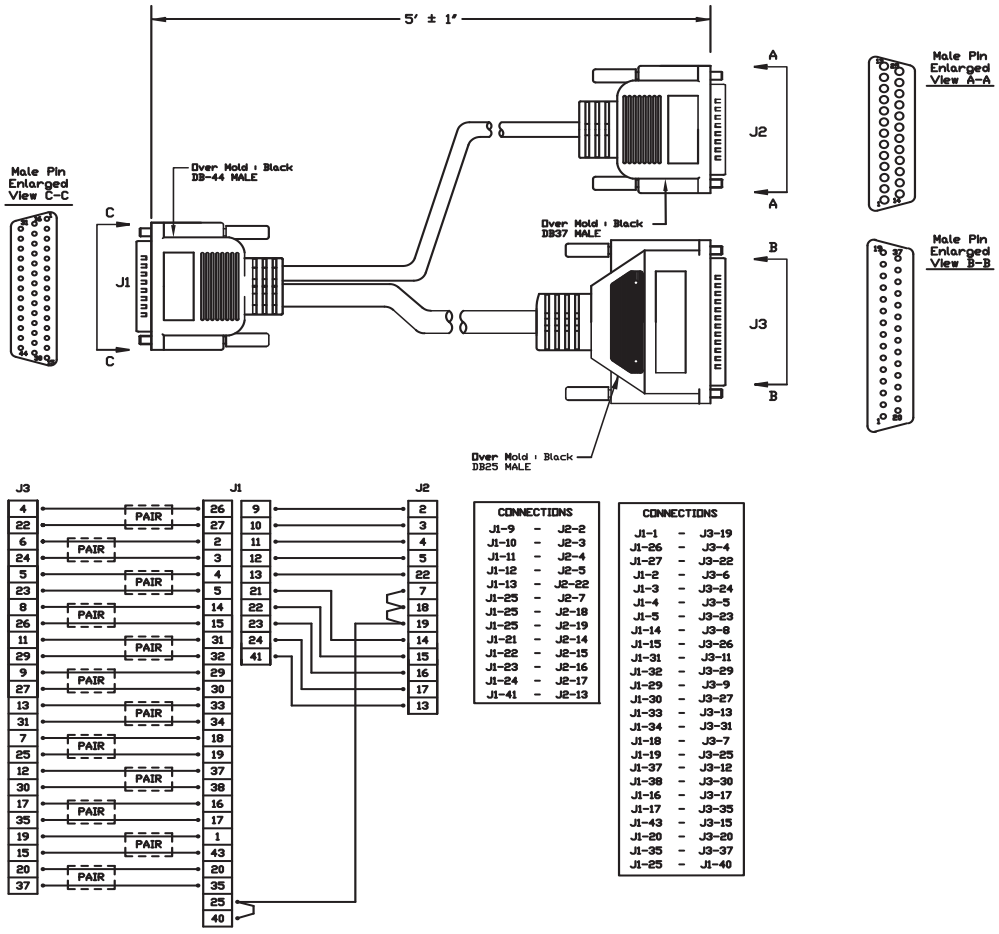
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RS-449 and RS-366 Serial Cable



This cable connects a Polycom HDX system to third-party network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page V.35/RS-449/RS-530 Serial Adapter on page 2-7 to connect to network equipment that has an RS-449/RS-366 interface. It is HD-44 M to "Y" RS-449 DB-37M/RS-366 DB-25M and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

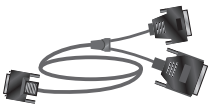
Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-10610-200	Yes





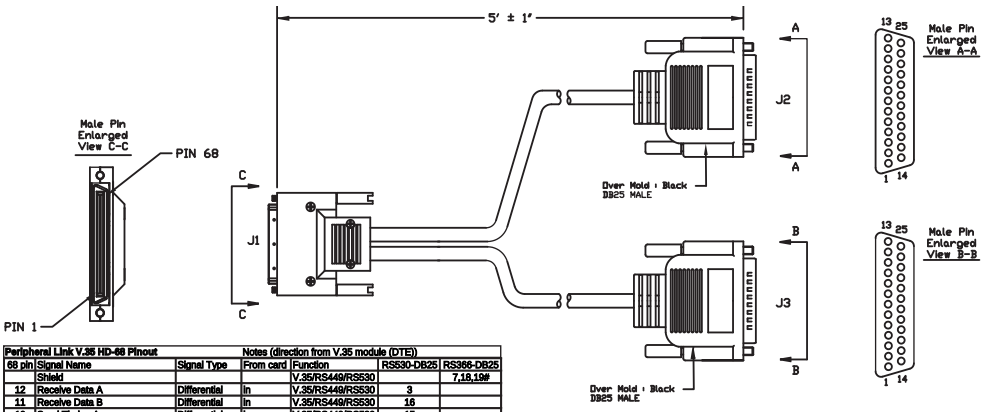
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RS-530 with RS-366 Serial Cable



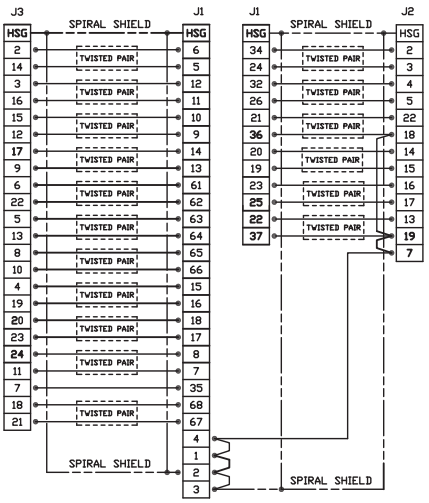
This cable connects a Polycom HDX system to third-party network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page V.35/RS-449/RS-530 Serial Adapter on page 2-7 to connect to network equipment that has an RS-530/RS-366 interface. It is HD-68M to "Y" DB-25M and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-21263-200	Yes



Peripheral Link V.35 HD-68 Pinout			Notes (direction from V.35 module (DTE))			
68 pin	Signal Name	Signal Type	From card	Function	RS530-DB25	RS366-DB25
	Shield			V.35/RS449/RS530		7,18,19#
12	Receive Data A	Differential	In	V.35/RS449/RS530	3	
11	Receive Data B	Differential	In	V.35/RS449/RS530	16	
10	Send Timing A	Differential	In	V.35/RS449/RS530	15	
9	Send Timing B	Differential	In	V.35/RS449/RS530	12	
29	Data Set Ready (DSR)	Single Ended	In	V.35		
28	Request To Send (RTS)	Single Ended	out	V.35		
27	Data Terminal Ready (DTR)	Single Ended	out	V.35		
34	Digit Present (DPR)	Single Ended	out	RS366		2
24	Abandon Call/Retry (ACR)	Single Ended	In	RS366		3
32	Call Request (CRQ)	Single Ended	out	RS366		4
26	Present Next Digit (PND)	Single Ended	In	RS366		5
21	Data Line Occupied (DLO)	Single Ended	In	RS366		22
14	Receive Timing A	Differential	In	V.35/RS449/RS530	17	
13	Receive Timing B	Differential	In	V.35/RS449/RS530	9	
8	Terminal Timing A	Differential	out	V.35/RS449/RS530	24	
7	Terminal Timing B	Differential	out	V.35/RS449/RS530	11	
15	Request To Send (RTS) A	Differential	out	RS449/RS530	4	
16	Request To Send (RTS) B	Differential	out	RS449/RS530	19	
35**	Receive Common	Gnd		RS449		
20	BCD Dial Digit Bit 1 (NB1)	Single Ended	out	RS366		14
19	BCD Dial Digit Bit 2 (NB2)	Single Ended	out	RS366		15
23	BCD Dial Digit Bit 4 (NB4)	Single Ended	out	RS366		16
25	BCD Dial Digit Bit 8 (NB8)	Single Ended	out	RS366		17
2**	Signal Ground	Gnd		V.35/RS366		7,18,19
6	Send Data A	Differential	out	V.35/RS449/RS530	2	
5	Send Data B	Differential	out	V.35/RS449/RS530	14	
	reserved (Ascend select line)					
63	Clear To Send (CTS) A	Differential	In	RS449/RS530	5	
64	Clear To Send (CTS) B	Differential	In	RS449/RS530	13	
61	Data Mode (DM-DSR) A	Differential	In	RS449/RS530	6	
62	Data Mode (DM-DSR) B	Differential	In	RS449/RS530	22	
65	Receiver Ready (RR-DCD) A	Differential	In	RS449/RS530	8	
66	Receiver Ready (RR-DCD) B	Differential	In	RS449/RS530	10	
4**	Send Common	Gnd		RS530	7	
33	Data Carrier Detect (DCD)	Single Ended	In	V.35		
18	Terminal Ready (TR-DTR) A	Differential	out	RS449/RS530	20	
17	Terminal Ready (TR-DTR) B	Differential	out	RS449/RS530	23	
3	V.35 Cable Connected		ground to indicate a V.35 cable is attached			7,18,19*
1	RS449 Cable Connected		ground to indicate a RS449 cable is attached			7,18,19^#
22	Distant Station Connected (DSC)	Single Ended	In	RS366		13
30	Clear To Send (CTS)	Single Ended	In	V.35		
31	Ring Indicate (RI) (incoming Call	Single Ended	In	V.35/RS449		
	reserved (Ascend select line)					
68	LOS A	Differential	out	RS530 crypto	18	
67	LOS B	Differential	out	RS530 crypto	21	

* For V.35, connect pin 3 of 68 pin connector to ground
^For RS449, connect pin 1 of 68 pin connector to ground
#For RS530, connect pins 1 and 3 of 68 pin connector to ground
** Gnd pins are 2,4, 35-60





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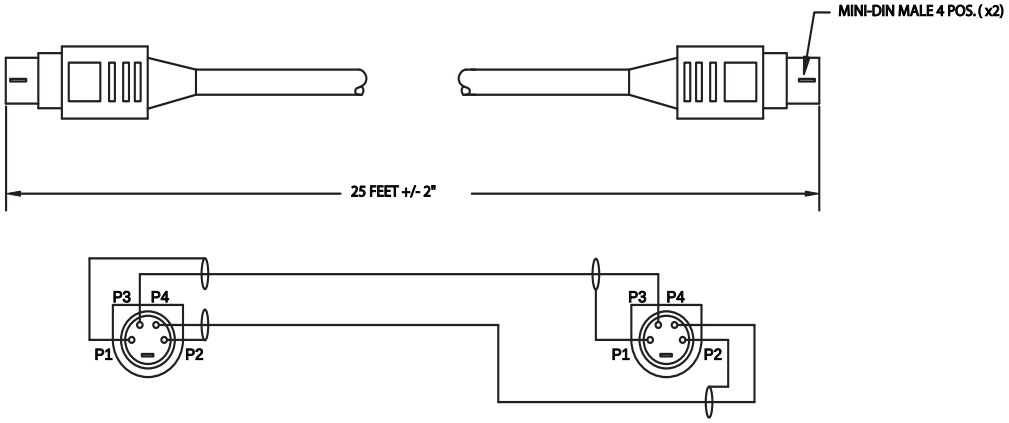
Video and Camera Cables

S-Video Cable



These cables connect a Polycom HDX system to a monitor or camera. They have yellow 4-pin mini-DIN connectors on both ends and are used with all Polycom HDX systems. The maximum approved length for this cable is 200 ft (60 m).

Length	Part Number	RoHS Compliant
8 ft (2.4 m)	2457-08410-002	Yes
25 ft (7.6 m)	2457-08409-002	Yes
50 ft (15 m)	2457-09204-200	Yes



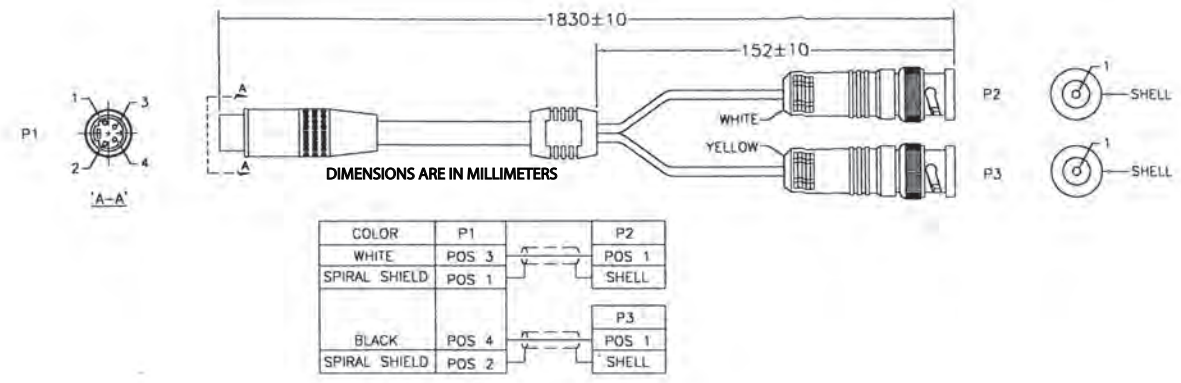
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BNC to S-Video Cable



This cable connects S-Video devices to a Polycom HDX system. It is 4-pin male mini-DIN to dual BNC male. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
6 ft (1.8 m)	2457-21489-200	Yes



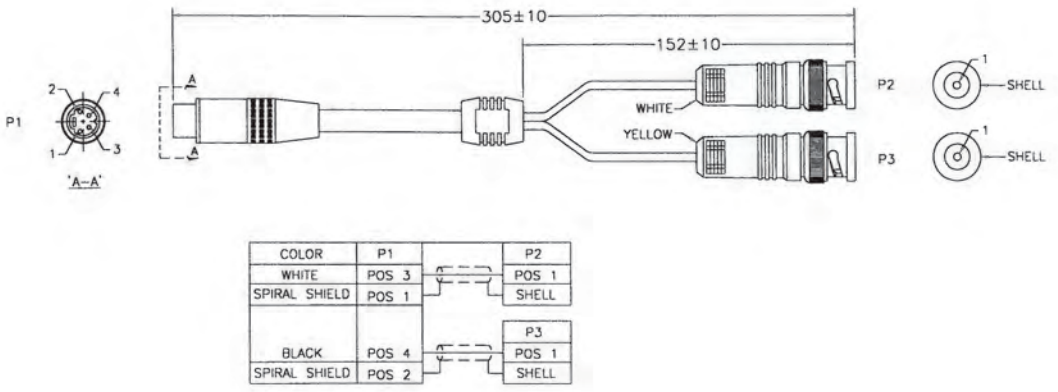
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BNC to S-Video Adapter



This adapter may be required when connecting standard S-Video cables to a Polycom HDX system. It is dual BNC male to 4-pin female mini-DIN.

Length	Part Number	RoHS Compliant
1 ft (.3 m)	2457-21490-200	Yes



COLOR	P1		P2
WHITE	POS 3		POS 1
SPIRAL SHIELD	POS 1		SHELL
			P3
BLACK	POS 4		POS 1
SPIRAL SHIELD	POS 2		SHELL

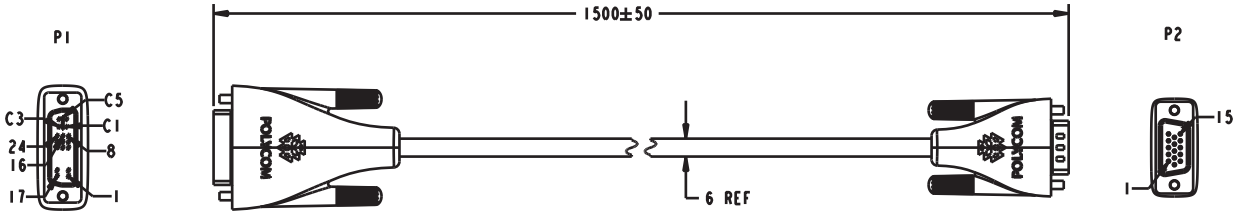
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DVI to VGA Monitor Cable



This cable connects a Polycom HDX system DVI-I output to a VGA monitor. It can also be used to connect a computer to one of the DVI-A video inputs on a Polycom HDX system. It is male DVI-A to male HD-15.

Length	Part Number	RoHS Compliant
4 ft 6 in (1.5 m)	2457-25182-001	Yes
9 ft 10 in (3 m)	2457-23792-001	Yes
25 ft (7.6 m)	2457-23792-025	Yes



WIRING LIST				
SIGNAL	P1	P2	CABLE UNIT	CONDUCTOR
RED	C1	1	D1	CENTER
GREEN	C2	2	D2	CENTER
BLUE	C3	3	D3	CENTER
H-SYNC	C4	13	E1	-
GROUND-RED	C5	6	D1	SHIELD
GROUND-GREEN		7	D2	SHIELD
GROUND-BLUE		8	D3	SHIELD
DDC-SCL	6	15	E2	-
DDC-SDA	7	12	E3	-
V-SYNC	8	14	E4	-
+5V DC	14	9	E5	-
	16			
GROUND	15	5	E6	-
		10		
SHIELD	SHELL	SHELL	C,D	-

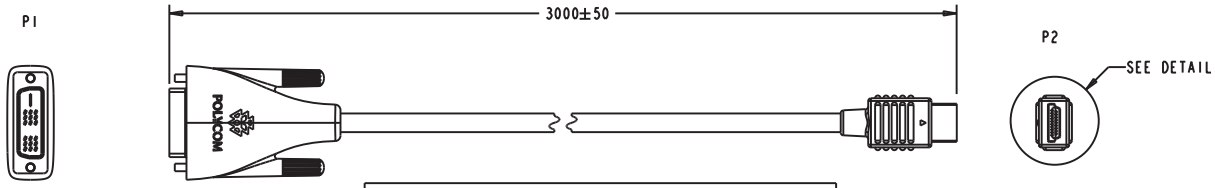
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HDMI Monitor Cable

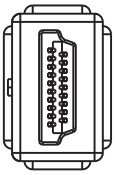


This cable connects the Polycom HDX system DVI-I output to an HDMI monitor. It is male DVI-D to male HDMI.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-23905-001	Yes

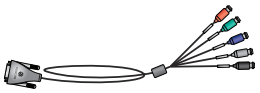


WIRING LIST				
SIGNAL	P1	P2	CABLE UNIT	CONDUCTOR
TMDS Data2-	1	3	D1	TIP
TMDS Data2+	2	1		RING
TMDS Data2 SHIELD	3	2		DRAIN
DDC Clock	6	15	E1	—
DDC Data	7	16	E2	—
TMDS Data1-	9	6	D2	TIP
TMDS Data1+	10	4		RING
TMDS Data1 Shield	11	5		DRAIN
+5 Volts	14	18	E3	—
+5 Volts Ground	15	17	E4	—
Hot Plug Detect	16	19	E5	—
TMDS Data0-	17	9	D3	TIP
TMDS Data0+	18	7		RING
TMDS Data0 Shield	19	8		DRAIN
TMDS Clock Shield	22	11	D4	DRAIN
TMDS Clock+	23	10		RING
TMDS Clock-	24	12		TIP
Shield	SHELL	SHELL	B,C	—



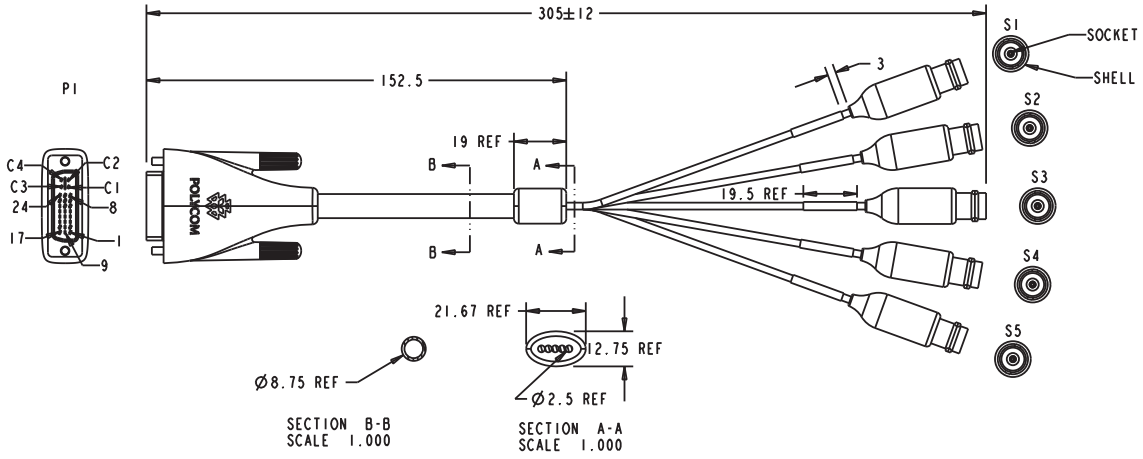
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BNC Monitor Adapter Cable



This cable connects the Polycom HDX system DVI-I output to a variety of analog display devices with composite, S-Video, component YPbPr, or RGBHV inputs. It is male DVI-A to five female BNC connectors.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23533-001	Yes



WIRING LIST							
SIGNAL	P1	WIRE	S1	S2	S3	S4	S5
VSync	8	COAX #1 CENTER	—	—	—	—	SOCKET
R/C/Pr	C1	COAX #2 CENTER	SOCKET	—	—	—	—
G/Y/Y/Comp.	C2	COAX #3 CENTER	—	SOCKET	—	—	—
B/-/Pb	C3	COAX #4 CENTER	—	—	SOCKET	—	—
HSync	C4	COAX #5 CENTER	—	—	—	SOCKET	—
GROUND	C5	COAX #1 SHIELD	SHELL	—	—	—	—
		COAX #2 SHIELD	—	SHELL	—	—	—
		COAX #3 SHIELD	—	—	SHELL	—	—
		COAX #4 SHIELD	—	—	—	SHELL	—
		COAX #5 SHIELD	—	—	—	—	SHELL

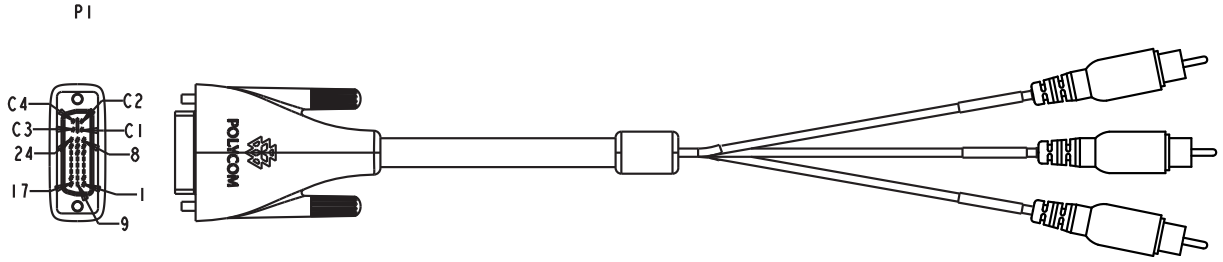
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Polycom HDX Component Monitor Cable



This cable connects a Polycom HDX system DVI-I output to a monitor with component connections. It is male DVI-A to three RCA.

Length	Part Number	RoHS Compliant
6 ft (1.8 m)	2457-52698-006	Yes
12 ft (3.6 m)	2457-52698-012	Yes



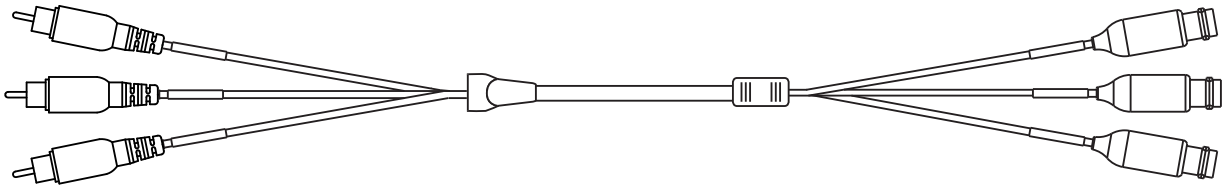
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HDX Component Video Cable



This cable connects a Polycom HDX system to a video playback device with component connections. It is three RCA to three male BNC.

Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-52688-025	Yes



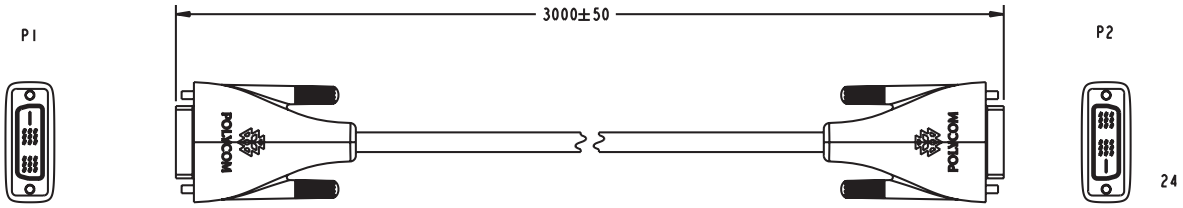
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DVI-D Monitor Cable



This cable connects a Polycom HDX system DVI-I output to a DVI-D monitor. It is male DVI-D on both ends.

Length	Part Number	RoHS Compliant
4 ft 6 in (1.5 m)	2457-25181-001	Yes
9 ft 10 in (3 m)	2457-23793-001	Yes



WIRING LIST				
SIGNAL	P1	P2	CABLE UNIT	CONDUCTOR
TMDS Data2-	1	1	D1	TIP
TMDS Data2+	2	2		RING
TMDS Data2 SHIELD	3	3		DRAIN
DDC Clock	6	6	E1	—
DDC Data	7	7	E2	—
TMDS Data1-	9	9	D2	TIP
TMDS Data1+	10	10		RING
TMDS Data1 Shield	11	11		DRAIN
+5 Volts	14	14	E3	—
+5 Volts Ground	15	15	E4	—
Hot Plug Detect	16	16	E5	—
TMDS Data0-	17	17	D3	TIP
TMDS Data0+	18	18		RING
TMDS Data0 Shield	19	19		DRAIN
TMDS Clock Shield	22	22	D4	DRAIN
TMDS Clock+	23	23		RING
TMDS Clock-	24	24		TIP
Shield	SHELL	SHELL	B,C	—

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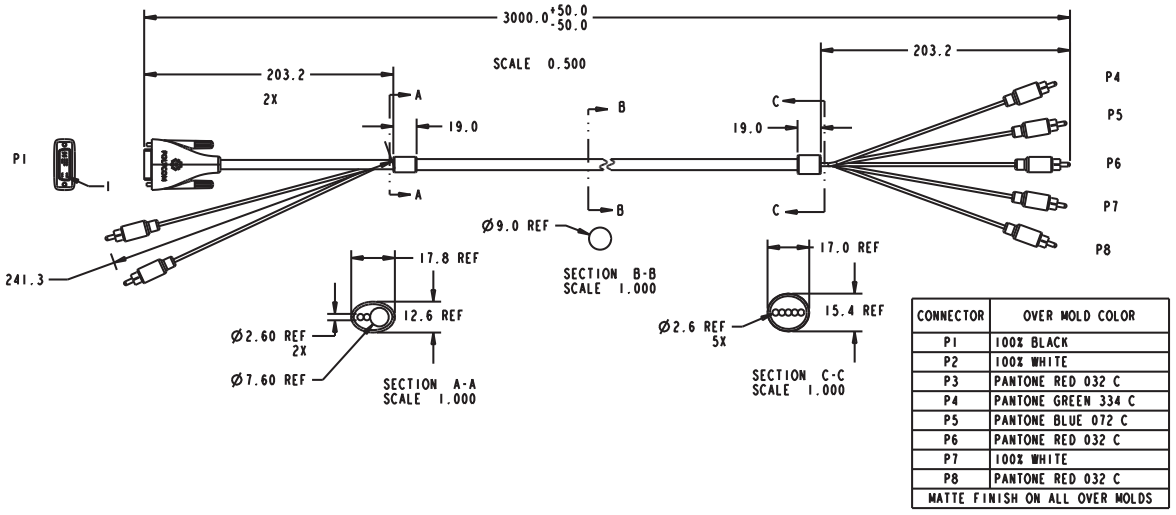
Component A/V Monitor Cable



This cable connects a Polycom HDX system DVI-I video output and stereo audio output to a monitor with component video and stereo audio connections. It is male DVI-A and dual male RCA to five RCA.

You must use the audio adapter cable on page Audio Adapter Cable on page 2-49 to connect the dual RCA connectors on this component A/V monitor cable to the dual Phoenix connectors on the Polycom HDX system.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-24772-001	Yes



CONNECTOR	OVER MOLD COLOR
P1	100% BLACK
P2	100% WHITE
P3	PANTONE RED 032 C
P4	PANTONE GREEN 334 C
P5	PANTONE BLUE 072 C
P6	PANTONE RED 032 C
P7	100% WHITE
P8	PANTONE RED 032 C
MATTE FINISH ON ALL OVER MOLDS	

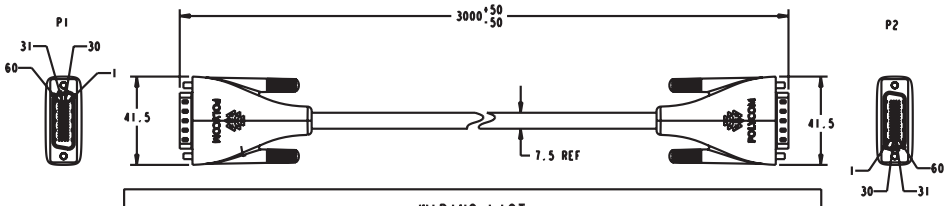
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HDCI Analog Camera Cable



This cable connects a Polycom HDX system to a Polycom EagleEye HD camera. This cable can be connected to the EagleEye View camera, but does not support audio. It has male HDCI connectors on both ends.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-23180-003	Yes
33 ft (10 m)	2457-23180-010	Yes
50 ft (15 m)	2457-23180-015	Yes
100 ft (30 m)	2457-23180-030	Yes



WIRING LIST					
SIGNAL NAME	P1 PIN#	P2 PIN#	CABLE UNIT	CONDUCTOR	COLOR
Y	47	47	D1	CENTER	
Y SHIELD	46	46		SHIELD	
Pb	13	13	D2	CENTER	
Pb SHIELD	12	12		SHIELD	
Pr	14	14	D3	CENTER	
Pr SHIELD	15	15		SHIELD	
+12 VDC	4	4	E1	-	
+12 VDC	5	5	E2	-	
+12 VDC	10	10	E3	-	
+12 VDC	11	11	E4	-	
GND	7	7	E5	-	
GND	8	8	E6	-	
GND	48	48	E7	-	
GND	58	58	E8	-	
Rx	1	1	E9	-	
Tx	2	2	E10	-	
IR	3	3	E11	-	
GND	SHELL	SHELL	B	-	

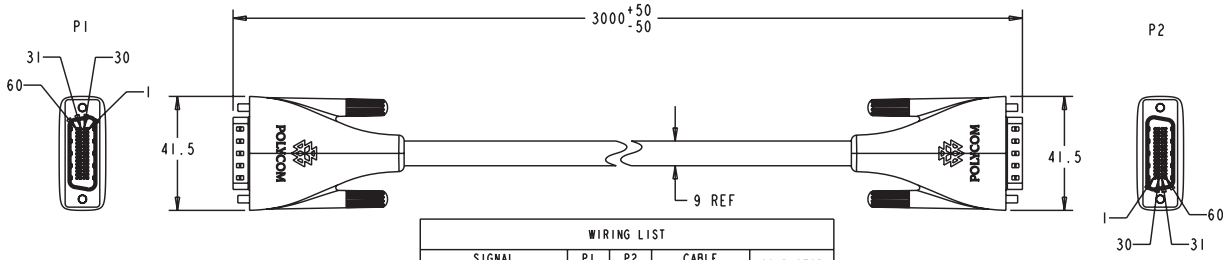
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HDCI Digital Camera Cable



This cable connects a Polycom HDX system to a Polycom EagleEye HD camera. It has male HDCI connectors on both ends.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-23181-003	Yes



WIRING LIST

SIGNAL NAME	P1 PIN#	P2 PIN#	CABLE UNIT	CONDUCTOR
TMDS-1 Data0+	32	32	D1	1
TMDS-1 Data0-	31	31		2
TMDS-1 Data0 SHIELD	57	57		DRAIN
TMDS-1 Data1+	27	27	D2	1
TMDS-1 Data1-	28	28		2
TMDS-1 Data1 SHIELD	34	34		DRAIN
TMDS-1 Data2+	25	25	D3	1
TMDS-1 Data2-	26	26		2
TMDS-1 Data2 SHIELD	35	35		DRAIN
TMDS-1 CLK+	30	30	D4	1
TMDS-1 CLK-	29	29		2
TMDS-1 CLK SHIELD	33	33		DRAIN
+12 VDC	4	4	E1	-
+12 VDC	5	5	E2	-
+12 VDC	10	10	E3	-
+12 VDC	11	11	E4	-
GND	7	7	E5	-
GND	8	8	E6	-
GND	48	48	E7	-
GND	58	58	E8	-
Rx	1	1	E9	-
Tx	2	2	E10	-
IR	3	3	E11	-
GND	SHELL	SHELL	B & C	-

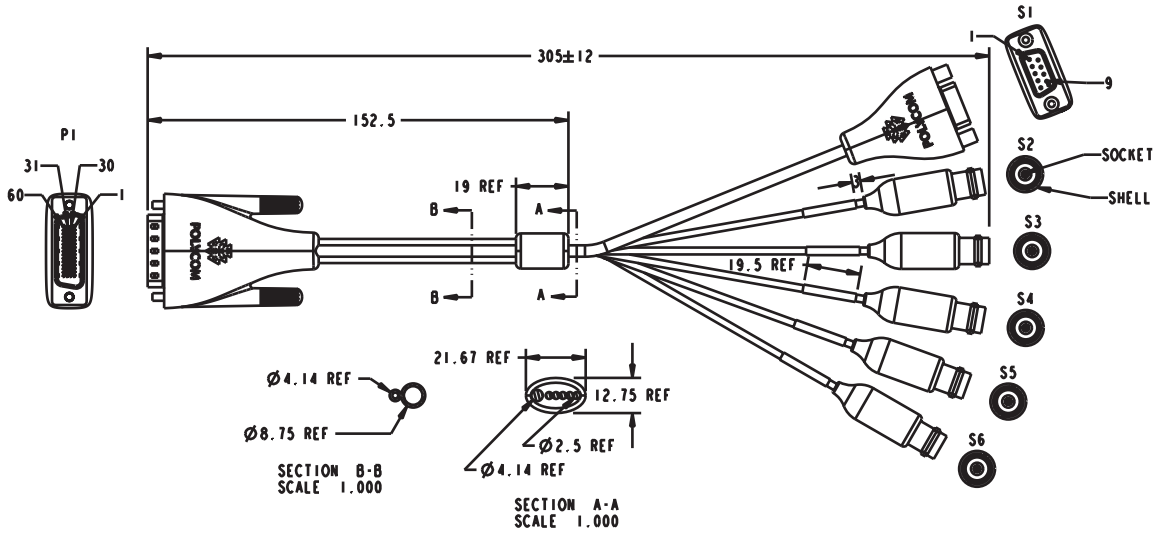
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HDCI Camera Break-Out Cable



This cable breaks out the HDCI camera cable video and control signals to standard interfaces. This cable can be connected to the EagleEye View camera, but does not support audio.The five BNC connectors can be used to carry composite video, S-Video, or analog component YPbPr video. The DB-9 connector is used to connect to PTZ camera control interfaces. It is male HDCI to five female BNC and one female DB-9.

Length	Part Number	RoHS Compliant
1ft (0.3 m)	2457-23521-001	Yes



WIRING LIST

SIGNAL	WIRE	P1	S1	S2	S3	S4	S5	S6
RS-232 Rx	28 AWG #1	1	2	—	—	—	—	—
RS-232 Tx	28 AWG #2	2	3	—	—	—	—	—
IR	28 AWG #3	3	9	—	—	—	—	—
GROUND	28 AWG #4	7	5	—	—	—	—	—
Pb/B SHIELD	COAX #1 SHIELD	12	—	—	—	SHELL	—	—
Pb/B	COAX #1 CENTER	13	—	—	—	SOCKET	—	—
Pr/R/C SHIELD	COAX #2 CENTER	14	—	SOCKET	—	—	—	—
Pr/R/C	COAX #2 SHIELD	15	—	SHELL	—	—	—	—
Y/G/C SHIELD	COAX #3 SHIELD	46	—	—	SHELL	—	—	—
Y/G/C	COAX #3 CENTER	47	—	—	SOCKET	—	—	—
HSync	COAX #4 CENTER	50	—	—	—	—	SOCKET	—
VSync	COAX #5 CENTER	51	—	—	—	—	—	SOCKET
HSync SHIELD	COAX #4 SHIELD	52	—	—	—	—	SHELL	—
VSync SHIELD	COAX #5 SHIELD		—	—	—	—	—	SHELL
—	BRAIDED SHIELD	SHIELD	SHIELD	—	—	—	—	—

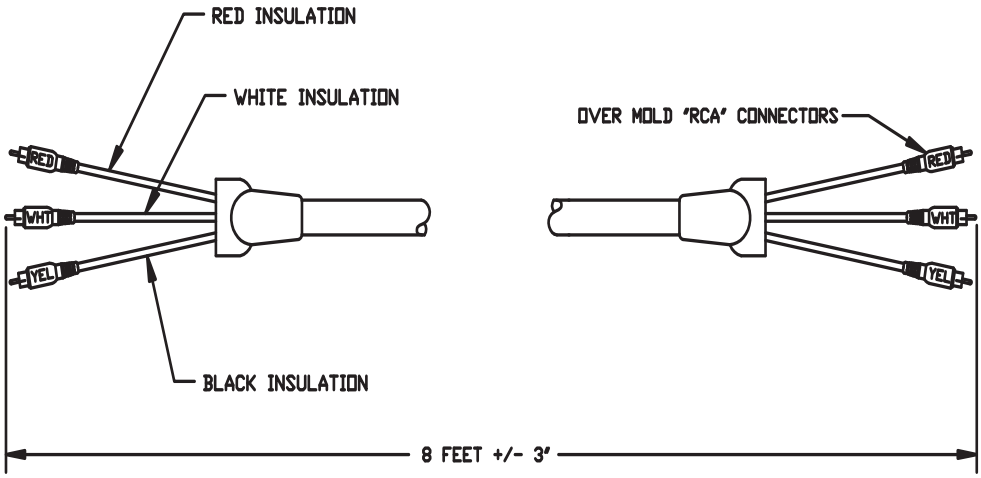
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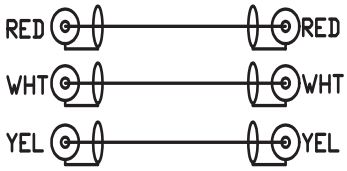
VCR/DVD Composite Cable



This cable connects a Polycom HDX system to a VCR or DVD player. It has triple RCA connectors on both ends. The Polycom HDX system requires a female RCA to male BNC adapter for the yellow video RCA connector, and the Audio Adapter Cable on page 2-49 . The maximum approved length for this cable is 50 ft (15 m).

Length	Part Number	RoHS Compliant
8 ft (2.6 m)	2457-08412-001	—





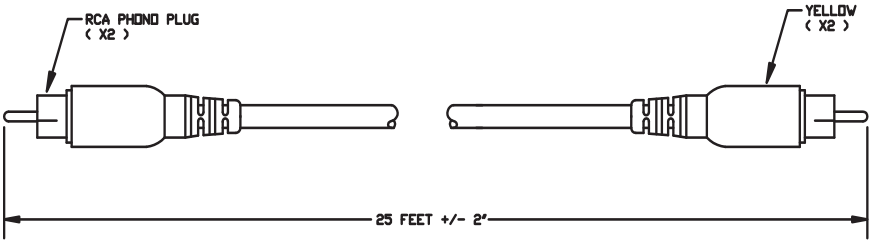
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Composite Video Cable



This cable connects a Polycom HDX system to a monitor or camera. It has single yellow RCA connectors on both ends. The Polycom HDX system requires a female RCA to male BNC adapter in order to connect to composite input or output. The maximum approved length for this cable is 100 ft (30 m).

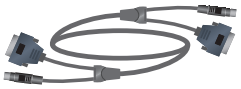
Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-09207-001	—





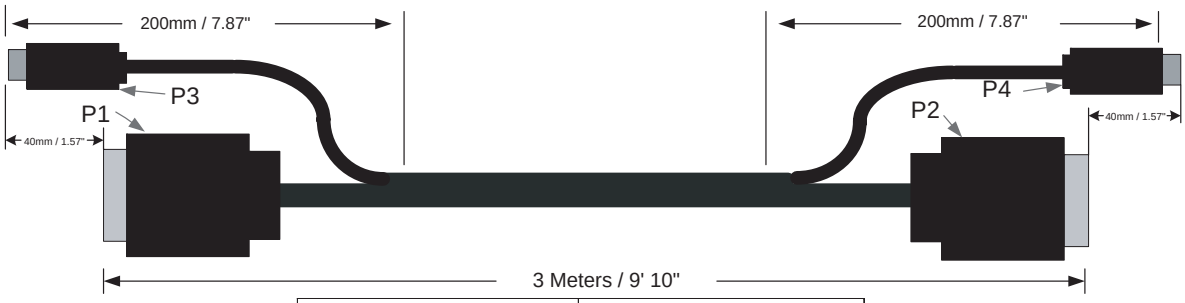
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PowerCam Plus Primary Cable

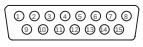


This cable connects a Polycom HDX system to a Polycom PowerCam Plus camera using the HDCI PowerCam Plus Adapter Cable on page 2-31 . It has 4-pin mini-DIN and DB-15 connectors on both ends.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	1457-50105-002	Yes
30 ft (9 m)	1457-50105-230	Yes
50 ft (15 m)	1457-50105-250	Yes
100 ft (30 m)	1457-50105-300	Yes
150 ft (45 m)	1457-50105-350	Yes

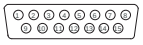


P1 Connector		P2 Connector	
Pin #	Signal Name	Pin #	Signal Name
1	Arm Mic	1	Arm Mic
2	Left Mic	2	Left Mic
3	A GND	3	A GND
4	Cam ID Bit	4	Cam ID Bit
5	P GND	5	P GND
6	+12V	6	+12V
7	SW-RX/SN-TX	7	SW-RX/SN-TX
8	IR signal	8	IR signal
9	Center Mic	9	Center Mic
10	Right Mic	10	Right Mic
11	A GND	11	A GND
12	P GND	12	P GND
13	+12V	13	+12V
14	SW-TX/SN-RX	14	SW-TX/SN-RX
15	IR return	15	IR return
P3 4 Pin mini Din		**P4 4 Pin mini Din**	
1	A GND	1	A GND
2	A GND	2	A GND
3	Luma	3	Luma
4	Chroma	4	Chroma



Front View of Connector





Front View of Connector



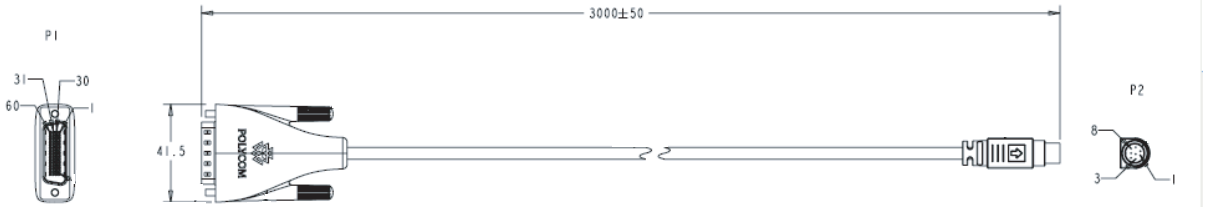
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HDCI PowerCam Cable



This cable connects a Polycom HDX system to a Polycom PowerCam camera. It is HDCI to 8-pin mini-DIN.

Length	Part Number	RoHS Compliant
10 ft (3 m)	2457-28168-001	Yes



WIRING LIST			
SIGNAL NAME	P1	CABLE UNIT	P2
Rx (CODEC)	1	E1	2
Tx (CODEC)	2	E2	1
IR	3	E3	4
+12V	4	E4	7
	5	E5	
	10	E6	
	11	E7	
P GND & IR RTN	7	E8	3
	8	E9	
	48	E10	
	58	E11	
A GND	15	SHIELD D1	5
	46	SHIELD D2	
CHROMA	14	CTR D1	8
LUMA	47	CTR D2	6
SHIELD	SHELL	BRAID	SHELL

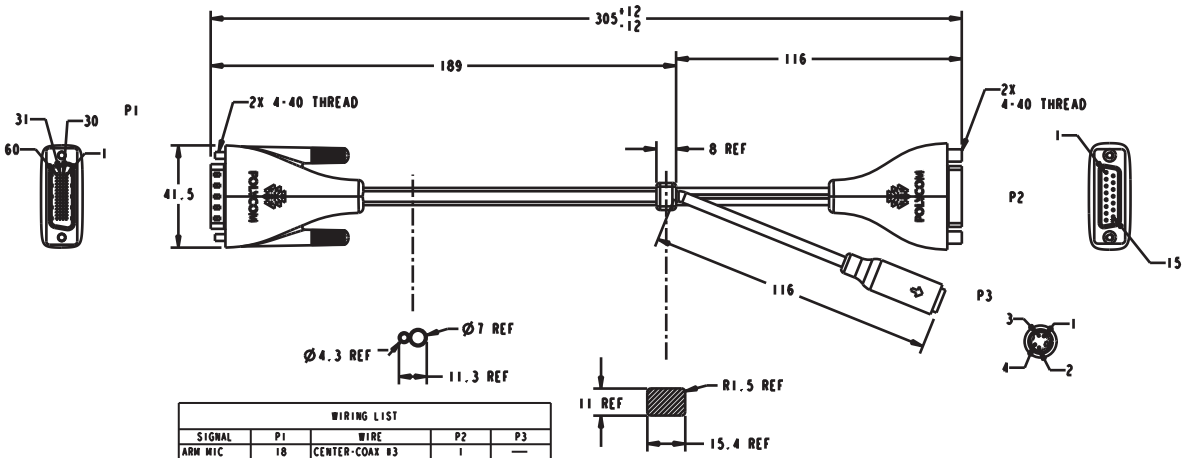
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HDCI PowerCam Plus Adapter Cable



This cable adapts a PowerCam Plus cable to HDCI. It is HDCI to 4-pin mini-DIN and DB-15. It can also be used with the PowerCam Primary Camera Cable on page 2-37 to connect PowerCam.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23481-001	Yes



WIRING LIST

SIGNAL	P1	WIRE	P2	P3
ARM MIC	18	CENTER-COAX #3	1	—
LEFT MIC	16	CENTER-COAX #4	2	—
A GND	43	SHIELD-COAX #3	3	—
	45	SHIELD-COAX #4		
P GND	7	28 AWG #1	5	—
	8	28 AWG #2		
+12V	4	28 AWG #3	6	—
	5	28 AWG #4		
Rx (CODEC)	1	30 AWG #1	7	—
IR	3	30 AWG #2	8	—
CENTER MIC	19	CENTER-COAX #5	9	—
RIGHT MIC	17	CENTER-COAX #6	10	—
A GND	42	SHIELD-COAX #5	11	—
	44	SHIELD-COAX #6		
P GND	48	28 AWG #5	12	—
	58	28 AWG #6		
+12V	10	28 AWG #7	13	—
	11	28 AWG #8		
Tx (CODEC)	2	30 AWG #3	14	—
IR RTN	7	30 AWG #4	15	—
A GND	46	SHIELD-COAX #1	—	1
A GND	15	SHIELD-COAX #2	—	2
LUMA	47	CENTER-COAX #1	—	3
CHROMA	14	CENTER-COAX #2	—	4
SHIELD	SEE NOTE 2			

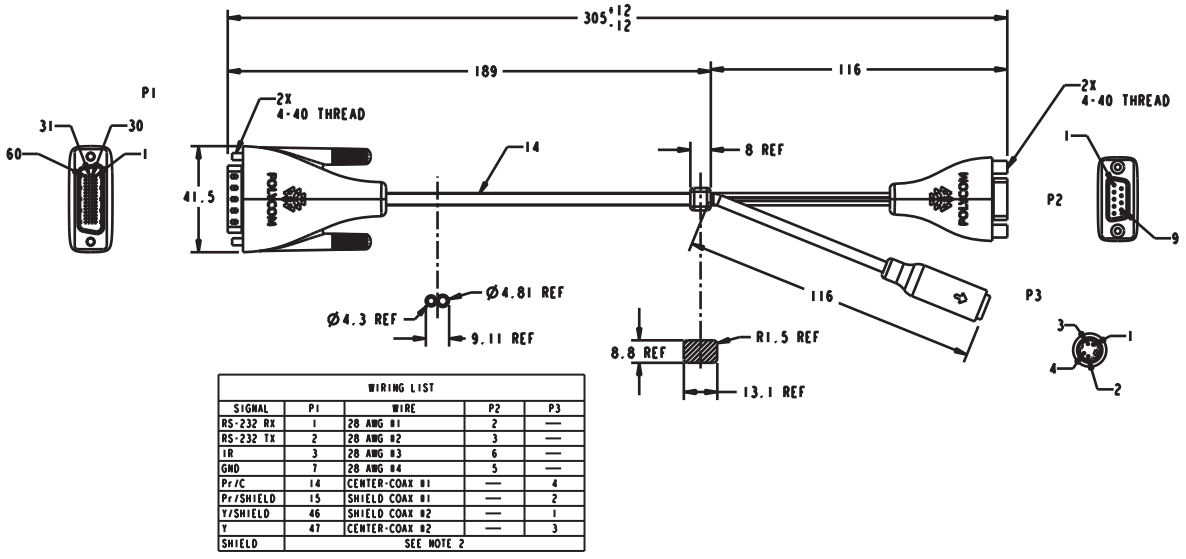
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HDCI VISCA Adapter Cable



This cable connects a Polycom HDX system HDCI video input to SD cameras with VISCA control that use a DB-9 serial connector. It is HDCI to 4-pin mini-DIN and DB-9. Standard S-Video and DB-9 serial cables are required to connect this cable to the camera.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23486-001	Yes



WIRING LIST				
SIGNAL	P1	WIRE	P2	P3
RS-232 RX	1	28 AWG #1	2	—
RS-232 TX	2	28 AWG #2	3	—
IR	3	28 AWG #3	6	—
GND	7	28 AWG #4	5	—
Pr/C	14	CENTER-COAX #1	—	4
Pr/SHIELD	15	SHIELD COAX #1	—	2
Y/SHIELD	46	SHIELD COAX #2	—	1
Y	47	CENTER-COAX #2	—	3
SHIELD	SEE NOTE 2			

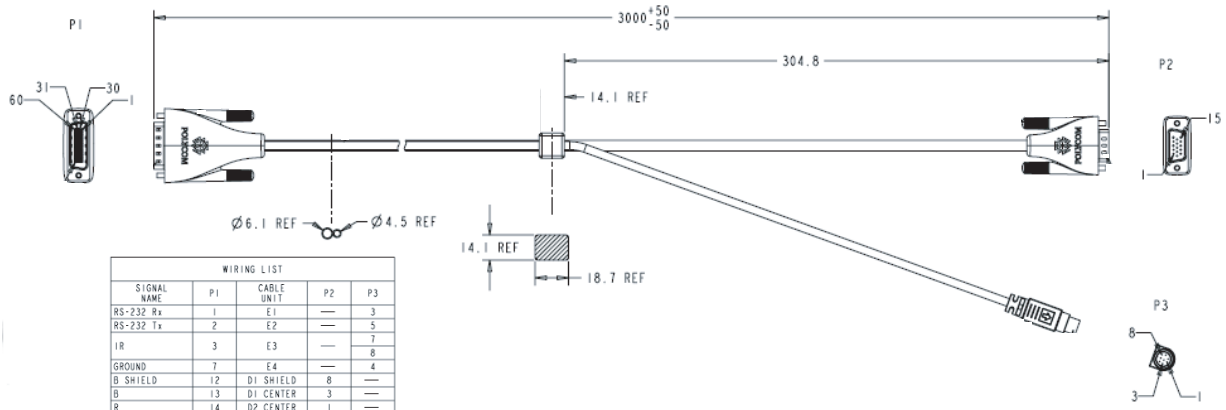
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HDCI Polycom EagleEye 1080 Camera Cable



This cable connects a Polycom HDX system HDCI video input to a Polycom EagleEye 1080 camera or to a Sony HD camera. The cable is HDCI to 8-pin mini-DIN and HD-15.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-28153-001	Yes
33 ft (10 m)	2457-28154-001	Yes
50 ft (15m)	2457-28154-050	Yes
100 ft (30m)	2457-28154-100	Yes

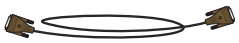


WIRING LIST

SIGNAL NAME	P1	CABLE UNIT	P2	P3
RS-232 Rx	1	E1	—	3
RS-232 Tx	2	E2	—	5
IR	3	E3	—	7
				8
GROUND	7	E4	—	4
B SHIELD	12	D1 SHIELD	8	—
B	13	D1 CENTER	3	—
R	14	D2 CENTER	1	—
R SHIELD	15	D2 SHIELD	6	—
G SHIELD	46	D3 SHIELD	7	—
G	47	D3 CENTER	2	—
H SYNC	50	D4 CENTER	13	—
V SYNC	51	D5 CENTER	14	—
VSYNC GROUND	52	D4 SHIELD	11	—
HSYNC GROUND		D5 SHIELD	10	—
GROUND	48	E5	4	—
	58	E6	5	—
SHIELD	SHELL	B1	—	SHELL
		B2	SHELL	—

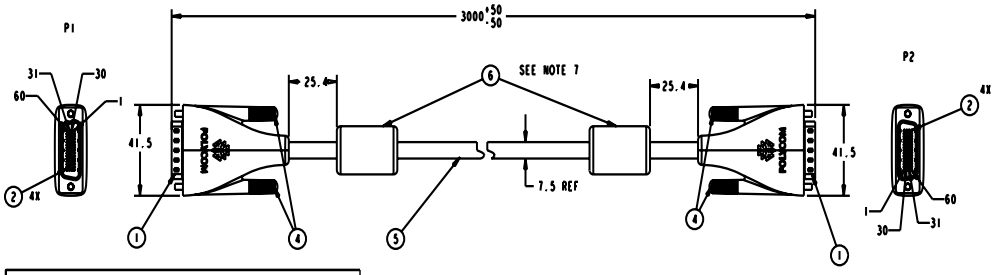
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HDCI Polycom EagleEye View Camera Cable



This cable connects a Polycom HDX system HDCI video input to a Polycom EagleEye View camera. It has male HDCI connectors on both ends.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-29759-001	Yes
33 ft (10 m)	2457-29759-010	Yes



WIRING LIST				
SIGNAL NAME	P1 PIN#	P2 PIN#	CABLE UNIT	CONDUCTOR
Y	47	47	D1	CENTER
Y SHIELD	46	46		SHIELD
Pb	13	13	D2	CENTER
Pb SHIELD	12	12		SHIELD
Pr	14	14	D3	CENTER
Pr SHIELD	15	15		SHIELD
LEFT MIC	16	16	D4	CENTER
LEFT MIC SHIELD	45	45		SHIELD
RIGHT MIC	17	17	D5	CENTER
RIGHT MIC SHIELD	44	44		SHIELD
+12 VDC	4	4	E1	-
+12 VDC	5	5	E2	-
+12 VDC	10	10	E3	-
+12 VDC	11	11	E4	-
GND	7	7	E5	-
GND	8	8	E6	-
GND	48	48	E7	-
GND	58	58	E8	-
Rx	1	1	E9	-
Tx	2	2	E10	-
IR	3	3	E11	-
GND	SHELL	SHELL	B	-

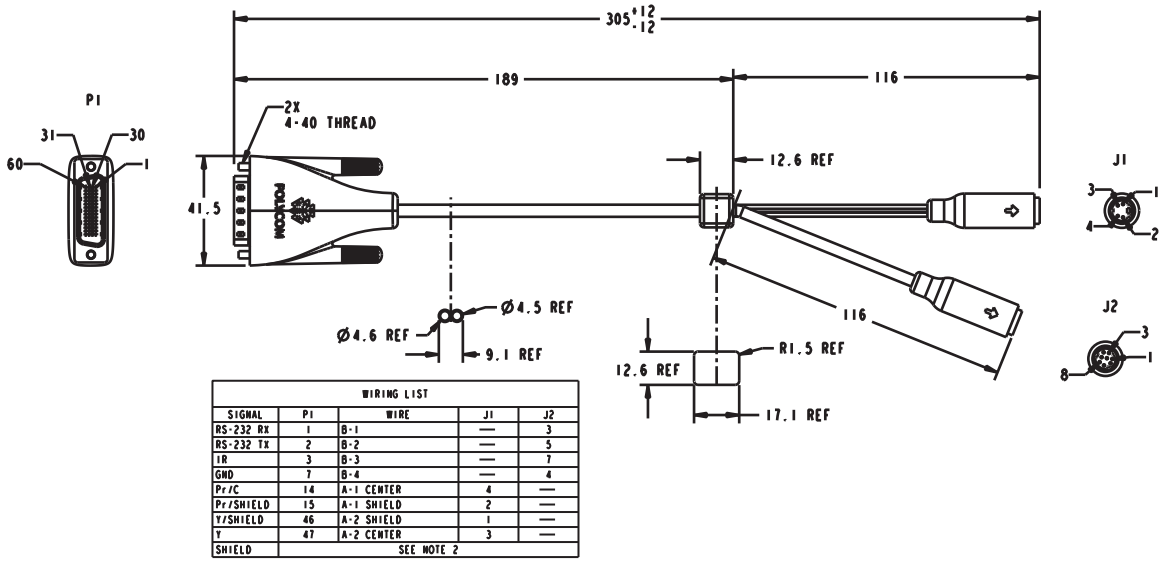
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HDCI Sony VISCA Adapter Cable



This cable connects a Polycom HDX system HDCI video input to a camera using Sony 8-pin mini-DIN VISCA and S-Video. It is HDCI to 8-pin mini-DIN and S-Video. Standard S-Video and Sony VISCA cables are required to connect this cable to the camera. The VISCA cable is a straight-through male 8-pin mini-DIN to male 8-pin mini-DIN serial cable.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23549-001	Yes



WIRING LIST

SIGNAL	P1	WIRE	J1	J2
RS-232 RX	1	B-1	—	3
RS-232 TX	2	B-2	—	5
IR	3	B-3	—	7
GND	7	B-4	—	4
Pr/C	14	A-1 CENTER	4	—
Pr/SHIELD	15	A-1 SHIELD	2	—
Y/SHIELD	46	A-2 SHIELD	1	—
Y	47	A-2 CENTER	3	—
SHIELD	SEE NOTE 2			

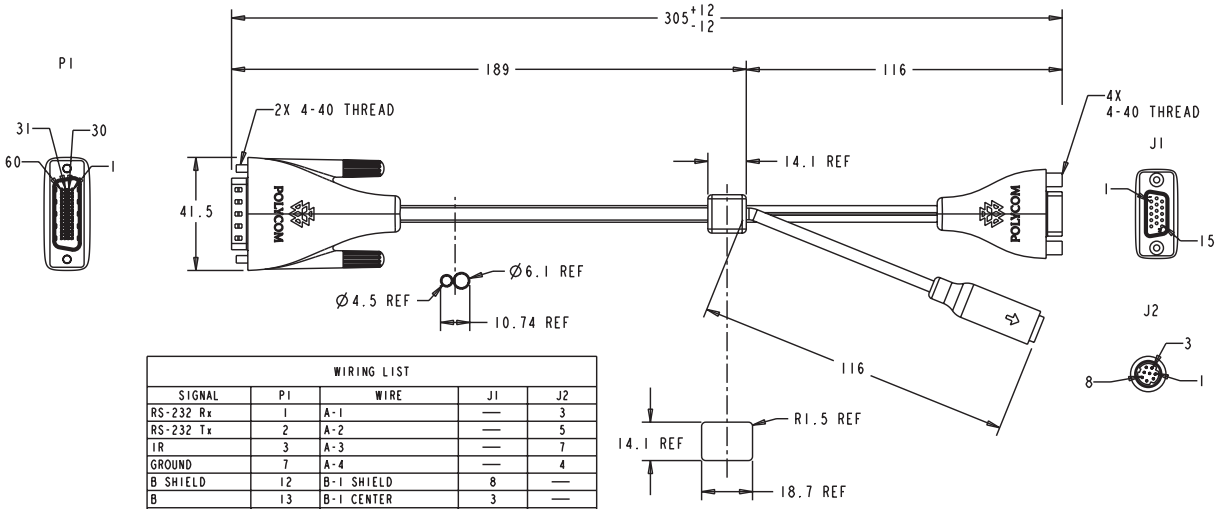
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HDCI EagleEye 1080 or Sony Adapter Cable



This cable connects a Polycom system HDCI video input to the Polycom EagleEye 1080, Sony EVI-HD1 PTZ or Sony BRC-H700 PTZ cameras. It is HDCI to 8-pin mini-DIN and HD-15. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23548-001	Yes



WIRING LIST				
SIGNAL	P1	WIRE	J1	J2
RS-232 Rx	1	A-1	—	3
RS-232 Tx	2	A-2	—	5
IR	3	A-3	—	7
GROUND	7	A-4	—	4
B SHIELD	12	B-1 SHIELD	8	—
B	13	B-1 CENTER	3	—
R	14	B-2 CENTER	1	—
R SHIELD	15	B-2 SHIELD	6	—
G SHIELD	46	B-3 SHIELD	7	—
G	47	B-3 CENTER	2	—
H SYNC	50	B-4 CENTER	13	—
V SYNC	51	B-5 CENTER	14	—
VSYNC GROUND	52	B-4 SHIELD	11	—
HSYNC GROUND		B-5 SHIELD	10	—
GROUND	48	A-5	4	—
	58	A-6	5	—
SHIELD	SEE NOTE 2			

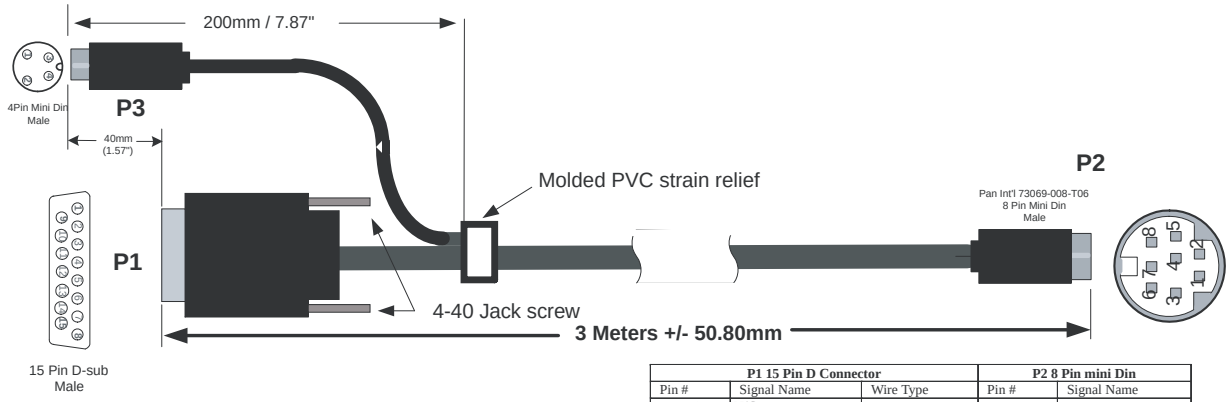
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PowerCam Primary Camera Cable



This cable connects the Polycom HDX system video input 1 to a Polycom PowerCam camera up to 10 ft away when used with the HDCI PowerCam Plus Adapter Cable on page 2-31 . It is 8-pin mini-DIN to 4-pin mini-DIN and DB-15. The maximum approved length for this cable is 10 ft (3 m).

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	1457-50338-002	Yes



P1 15 Pin D Connector			P2 8 Pin mini Din	
Pin #	Signal Name	Wire Type	Pin #	Signal Name
1-4	N/C			
5	PGND	22AWG wire	3	DGND
6	+12V	22 AWG wire	7	+12V
7	SW-RX/SN-TX	30 AWG wire	2	SW-RX/SN-TX
8	IR-SIGNAL	30 AWG wire	4	IR_SIGNAL
9-11	N/C			
12	P GND	22 AWG wire	3	DGND
13	+12V	22 AWG wire	7	+12V
14	SW-TX/SN-RX	30 AWG wire	1	SW-TX/SN-RX
15	IR RETURN	30 AWG wire	3	DGND
SHIELD		DRAIN wire	SHIELD	
P3 4 Pin Mini Din				
1	RTN	Coax Shield	5	GVID
2	RTN	Coax Shield	5	GVID
3	Luma	Micro Coax	6	Luma
4	Chroma	Micro Coax	8	Chroma
SHIELD		DRAIN wire	SHIELD	

Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

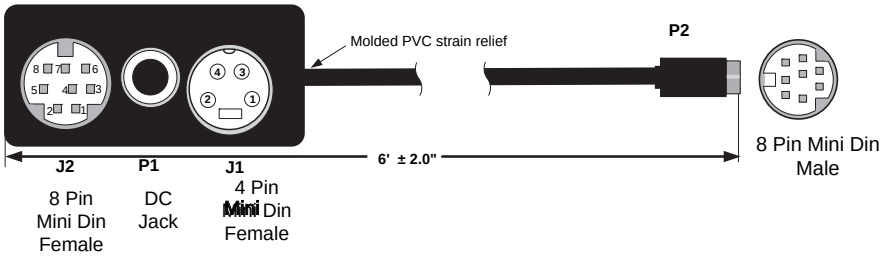
PowerCam Break-Out Cable



This cable connects S-Video and control cables and a power supply to a Polycom PowerCam camera. This combination is required when using the PowerCam as the primary camera more than 10 ft away from the system, or as the secondary camera. It is 8-pin mini-DIN to 3-way breakout block.

A separate power supply is required (part number 1465-52621-036).

Length	Part Number	RoHS Compliant
6 ft (1.8 m)	2457-50526-200	Yes



CONNECTION TABLE				
Signal Name	P1	P2	J1	J2
TXD	—	1	—	5
RXD	—	2	—	3
DGND	1	3	—	6 & 4
IR-SIGNAL	—	4	—	7
CHROMAR	—	5	1	—
LUMAR	—	5	2	—
LUMA (Y)	—	6	3	—
+12V	2	7	—	—
CHROMA (C)	—	8	4	—
SHIELD	—	Shield	—	Shield

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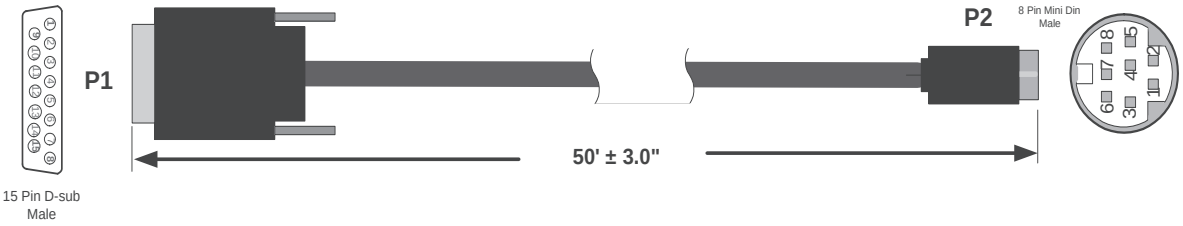
PowerCam Plus/VISCA Control Cable

8-pin mini-DIN to DB-15



This cable adapts the 8-pin mini-DIN VISCA control interface to the PowerCam Plus DB-15 control interface. It is used with the PowerCam Break-Out cable and the HDCI PowerCam Plus adapter cable. It is 8-pin mini-DIN to DB-15.

Length	Part Number	RoHS Compliant
50 ft (15 m)	1457-50527-201	Yes



P1 15 Pin D Connector		P2 VISCA 8 Pin mini Din	
Pin #	Signal Name	Pin #	Signal Name
1-6, 9-11, 13	NC	1, 2, 8	NC
7	SW-RX/SN-TX	3	SW-RX/SN-TX
8	IR-SIGNAL	7	IR OUT
12	P GND	4	GND
14	SW-TX/SN-RX	5	SW-TX/SN-RX
15	IR RETURN	6	GND
SHIELD		SHIELD	

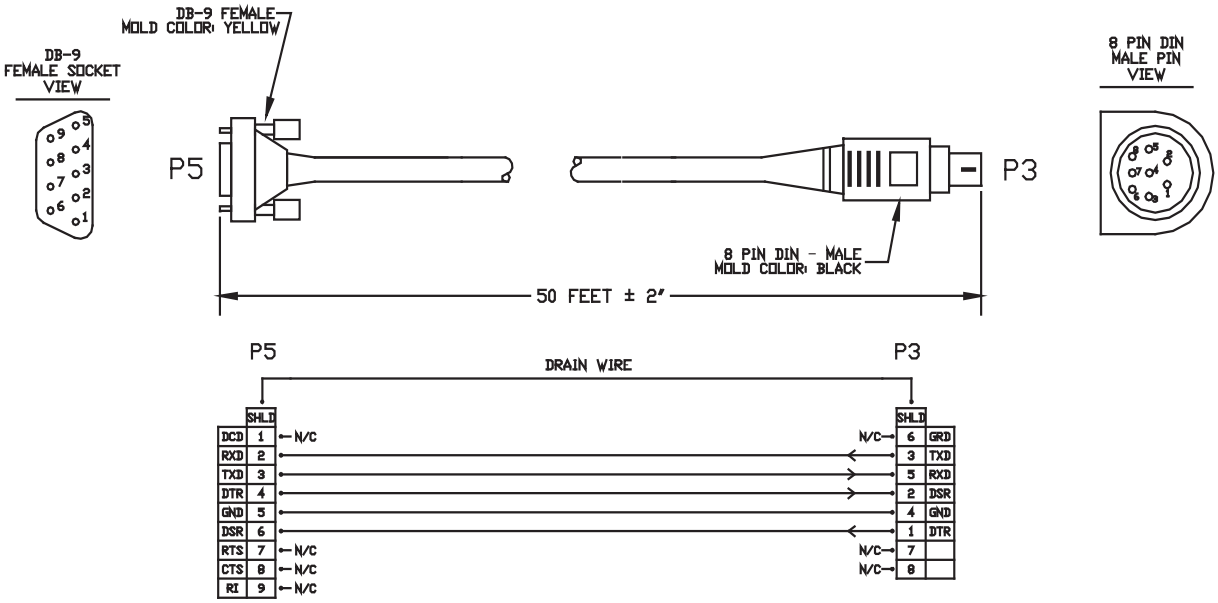
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

8-pin mini-DIN to DB-9



This cable connects Polycom HDX system serial port inputs to a non-Polycom camera using a VISCA 8-pin DIN connector, or to a Polycom PowerCam break-out cable with a PowerCam camera. It is 8-pin mini-DIN to DB-9. RTS/CTS and IR are not supported on this cable.

Length	Part Number	RoHS Compliant
50 ft (15 m)	2457-10029-200	Yes



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Audio Cables

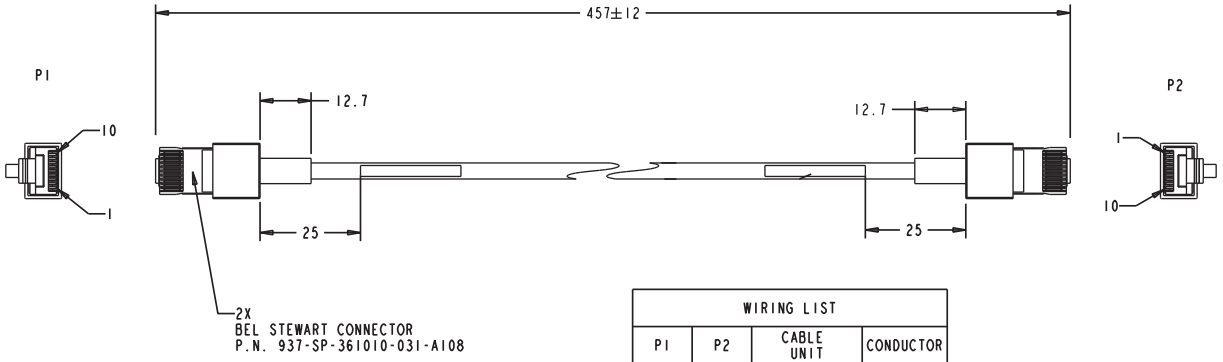
Polycom HDX Microphone Host Cable

For more information about supported microphone configurations, refer to the *Administrator's Guide for Polycom HDX Systems*.



This cable connects a Polycom HDX system to the Polycom SoundStructure C-Series mixer. It is unkeyed male RJ-45 on both ends.

Length	Part Number	RoHS Compliant
18 in (0.5 m)	2457-23574-001	Yes
25 ft (7.5 m)	2457-23217-001	Yes



WIRING LIST			
P1	P2	CABLE UNIT	CONDUCTOR
2	6	TWISTED PAIR #1	1
3	7		2
6	2	TWISTED PAIR #2	1
7	3		2
8	8	CONDUCTOR #1	-
9	9	CONDUCTOR #2	-
4	4	DRAIN	-
SHIELD	SHIELD	SHIELD	

PINS 1, 5 AND 10 OF P1 & P2 ARE NOT USED AND SHALL BE LEFT OPEN.

COLOR	AWG	P1	P2
WHITE/GREEN	24	1	5
GREEN	24	2	6
WHITE/ORANGE	24	5	1
ORANGE	24	6	2
WHITE/BROWN	24	7	7
BROWN	24	8	8
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

P1 - RJ-45 shielded plug, Tyco 5-569552 or equivalent
P2 - RJ-45 shielded plug, Tyco 5-569552 or equivalent

When connecting two Polycom HDX microphone host devices, a cross-over cable is required. To build a custom cross-over cable for this purpose, you should use shielded CAT5 or better cable. Each end of the custom cable should have a shielded RJ-45 plug connector that connects to a Polycom HDX microphone host device. The maximum supported cable length is 100 feet.

Due to differing use of the twisted pairs within the cable, the pinout for this custom CAT5 cross-over cable is not the same as the pinout that is used for standard Ethernet cables. Do not use standard Ethernet cables. Instead, for best cable performance, refer to the following pinout information to create this custom CAT5 cross-over cable.

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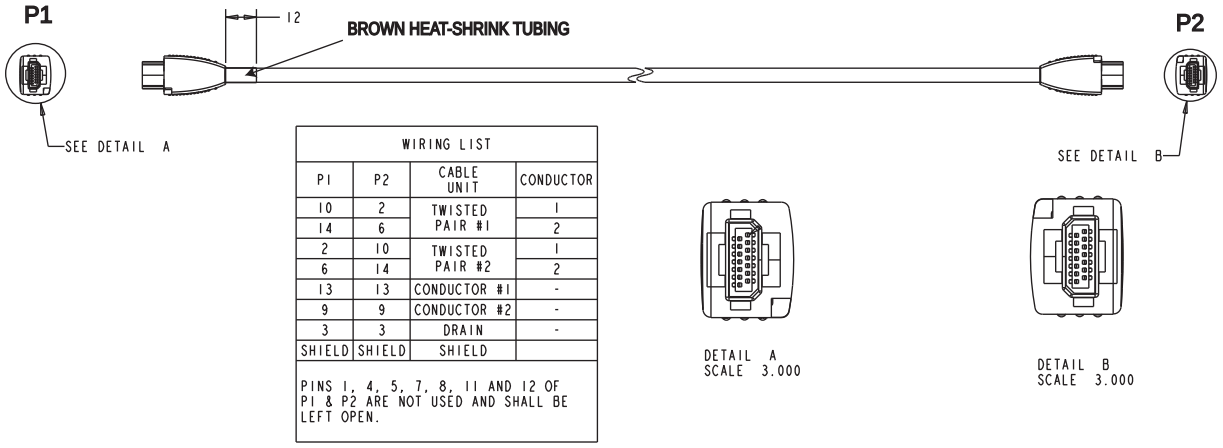
Polycom HDX Microphone Array Cable

For more information about supported microphone configurations, refer to the *Administrator's Guide for Polycom HDX Systems*.



This cable connects two Polycom HDX microphones together. This cable can also be used with the Polycom HDX Microphone Array Cable Adapter on page 2-44 to connect a Polycom HDX system to a Polycom HDX microphone array or to a SoundStation IP 7000 phone. It has male Walta connectors on both ends.

Length	Part Number	RoHS Compliant
15 ft (4.6 m)	2457-23215-001	Yes
25 ft (7.6 m)	2457-23216-001	Yes



WIRING LIST

P1	P2	CABLE UNIT	CONDUCTOR
10	2	TWISTED PAIR #1	1
14	6		2
2	10	TWISTED PAIR #2	1
6	14		2
13	13	CONDUCTOR #1	-
9	9	CONDUCTOR #2	-
3	3	DRAIN	-
SHIELD	SHIELD	SHIELD	

PINS 1, 4, 5, 7, 8, 11 AND 12 OF P1 & P2 ARE NOT USED AND SHALL BE LEFT OPEN.

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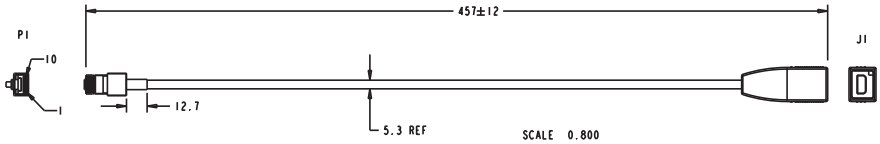
Polycom HDX Microphone Array Cable Adapter

For more information about supported microphone cable configurations, refer to the *Administrator's Guide for Polycom HDX Systems*.



This cable adapts the Polycom HDX Microphone Array Cable on page 2-43 for use with the Polycom HDX 9000 Series system and the SoundStructure C-Series mixer. It is male RJ-45 to female Walta.

Length	Part Number	RoHS Compliant
18 in (0.5 m)	2457-23716-001	Yes

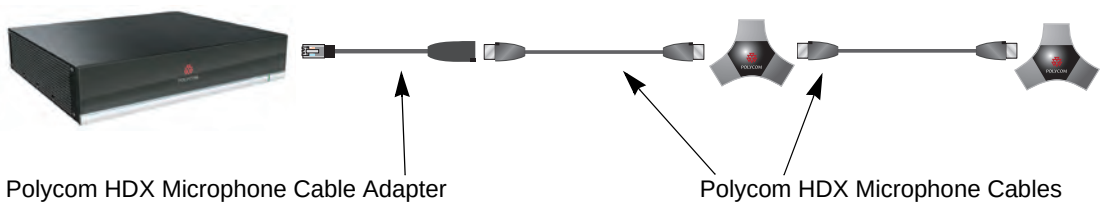


WIRING LIST

P1	J1	CABLE UNIT	CONDUCTOR
2	10	TWISTED PAIR #1	1
3	14		2
6	2	TWISTED PAIR #2	1
7	6		2
8	13	INSULATED CONDUCTOR #1	-
9	9	INSULATED CONDUCTOR #2	-
4	3	DRAIN	-
	SHIELD		
SHIELD	-	SHIELD	-

CONTACTS 1,5 AND 10 OF P1 AND CONTACTS 1,4,5,7,8,11 AND 12 OF J1 ARE NOT USED AND SHALL BE LEFT OPEN.

The following diagram shows microphone connection options for Polycom HDX 9000 Series systems, using cables available from Polycom.



Do not connect Polycom microphone cables or devices to the Ethernet port, and do not connect an Ethernet cable or device to the Polycom microphone input.



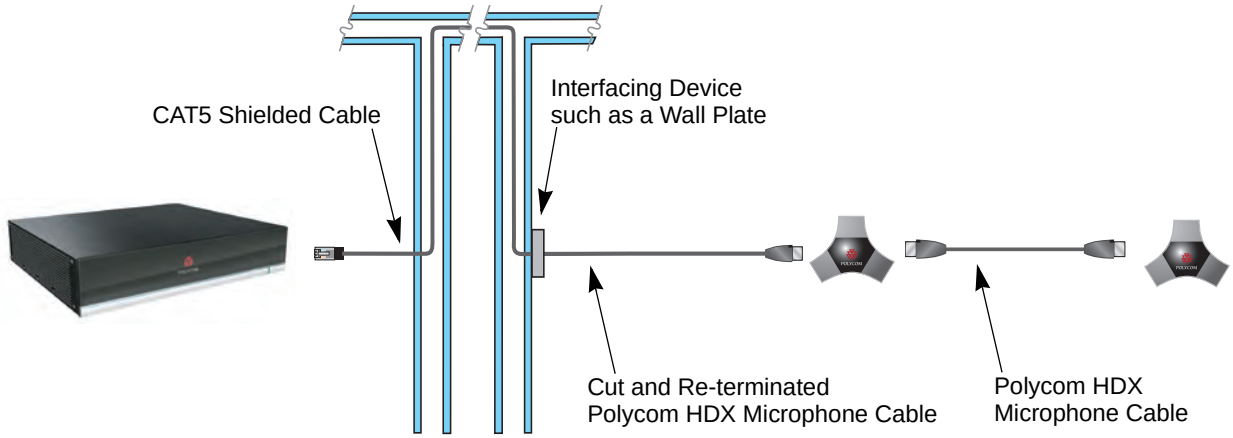
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

Custom Cabling for Polycom HDX Microphones

You can create a custom-length cable from the Polycom HDX 9000 Series system to the Polycom HDX microphone. Start with the microphone cable (2457-23216-001), and cut off the P1 end. Using the wiring tables shown, create a custom cable from the microphone to a wall plate or other interfacing device. Next, from the wall plate or other interfacing device, run shielded CAT5 or better cable to the Polycom HDX system, terminating with a shielded RJ-45 plug connector.

The total length from the Polycom HDX system to the first Polycom microphone can vary between 18 in and 100 ft. The maximum length between subsequent microphones is 25 ft.

The following diagram shows an example of longer custom cabling from a Polycom HDX system to a Polycom microphone or a Polycom SoundStation IP 7000 Phone.



The following steps explain how to wire this custom cable configuration.

1 Identify the P1 connector on the Polycom HDX microphone cable according to the location of the brown heat-shrink tubing as shown on page Polycom HDX Microphone Array Cable on page 2-43 . Remove the P1 connector and skip to step 4. Note that two separate vendors manufacture these cables, which are electrically equivalent but have different color coding. If you cannot identify the P1 connector, remove either connector from the cable and continue with step 2.

   The following tables show the color coding for the cable wiring.

VENDOR 1

COLOR	AWG	P1	P2
RED	28	10	2
ORANGE	28	14	6
YELLOW	28	2	10
GREEN	28	6	14
WHITE	24	13	13
BLACK	24	9	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

P1, P2 - Walta Electronics, M30-558-0051

VENDOR 2

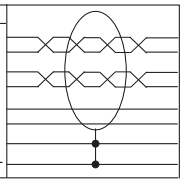
COLOR	AWG	P1	P2
BLUE	28	10	2
YELLOW	28	14	6
ORANGE	28	2	10
GREEN	28	6	14
BLACK	24	13	13
WHITE	24	9	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

P1, P2 - Walta Electronics, M30-558-0051

2 If you are not sure which connector you cut off, use the following tables to perform a continuity check between the connector and the cable colors. If you cut off P1, skip to step 4. If you cut off P2, continue with step 3.

VENDOR 1, P1

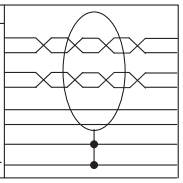
COLOR	AWG	P1
RED	28	10
ORANGE	28	14
YELLOW	28	2
GREEN	28	6
WHITE	24	13
BLACK	24	9
DRAIN WIRE		3
SHIELD		SHELL



P1 - Walta Electronics, M30-558-0051

VENDOR 2, P1

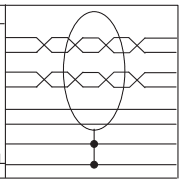
COLOR	AWG	P1
BLUE	28	10
YELLOW	28	14
ORANGE	28	2
GREEN	28	6
BLACK	24	13
WHITE	24	9
DRAIN WIRE		3
SHIELD		SHELL



P1 - Walta Electronics, M30-558-0051

VENDOR 1, P2

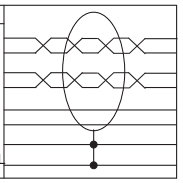
COLOR	AWG	P2
RED	28	2
ORANGE	28	6
YELLOW	28	10
GREEN	28	14
WHITE	24	13
BLACK	24	9
DRAIN WIRE		3
SHIELD		SHELL



P2 - Walta Electronics, M30-558-0051

VENDOR 2, P2

COLOR	AWG	P2
BLUE	28	2
YELLOW	28	6
ORANGE	28	10
GREEN	28	14
BLACK	24	13
WHITE	24	9
DRAIN WIRE		3
SHIELD		SHELL

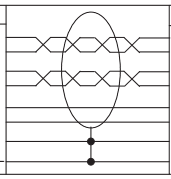


P2 - Walta Electronics, M30-558-0051

3 If you cut off P2, re-terminate the cable with a shielded RJ-45 connector using the following tables, then skip to step 5.

VENDOR 1, P1

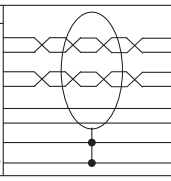
COLOR	AWG	P1	P2
RED	28	10	5
ORANGE	28	14	6
YELLOW	28	2	1
GREEN	28	6	2
WHITE	24	13	7
BLACK	24	9	8
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL



P1 - Walta Electronics, M30-558-0051
P2 - RJ-45 shielded plug, Tyco 5-569552 or equivalent

VENDOR 2, P1

COLOR	AWG	P1	P2
BLUE	28	10	5
YELLOW	28	14	6
ORANGE	28	2	1
GREEN	28	6	2
BLACK	24	13	7
WHITE	24	9	8
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

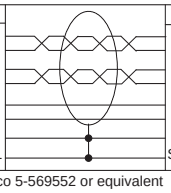


P1 - Walta Electronics, M30-558-0051
P2 - RJ-45 shielded plug, Tyco 5-569552 or equivalent

4 If you cut off P1, re-terminate the cable with an RJ-45 8-pin plug using the following tables, then continue with step 5.

VENDOR 1

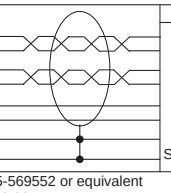
COLOR	AWG	P1	P2
RED	28	1	2
ORANGE	28	2	6
YELLOW	28	5	10
GREEN	28	6	14
WHITE	24	7	13
BLACK	24	8	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL



P1- RJ-45 shielded plug, Tyco 5-569552 or equivalent
P2 - Walta Electronics, M30-558-0051

VENDOR 2

COLOR	AWG	P1	P2
BLUE	28	1	2
YELLOW	28	2	6
ORANGE	28	5	10
GREEN	28	6	14
BLACK	24	7	13
WHITE	24	8	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

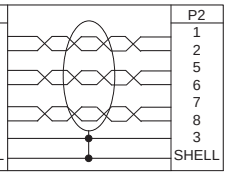


P1- RJ-45 shielded plug, Tyco 5-569552 or equivalent
P2 - Walta Electronics, M30-558-0051

5 Whether you re-terminated the P1 or P2 end of the cable, at this point the cable can be connected directly to the system and to the first microphone. If it is necessary to install an extension to the system's RJ-45 connection on a wall plate or panel, create a custom pinout cable using shielded CAT5 cable. The cable is terminated on one end to either a shielded CAT5

keystone jack or, if using a shielded panel coupler, a shielded RJ-45 plug connector. The other end terminates to a shielded RJ-45 plug that connects to the Polycom HDX system.

COLOR	AWG	P1		P2
WHITE/GREEN	24	1		1
GREEN	24	2		2
WHITE/ORANGE	24	5		5
ORANGE	24	6		6
WHITE/BROWN	24	7		7
BROWN	24	8		8
DRAIN WIRE		3		3
SHIELD		SHELL		SHELL



P1 - RJ-45 shielded Keystone jack, L-com RJ110C5-S or equivalent OR
P1 - RJ-45 shielded plug, Tyco 5-569552 or equivalent with shielded RJ-45 panel coupler kit (L-com ECF504-SC5E or equivalent)
P2- RJ-45 shielded plug, Tyco 5-569552 or equivalent



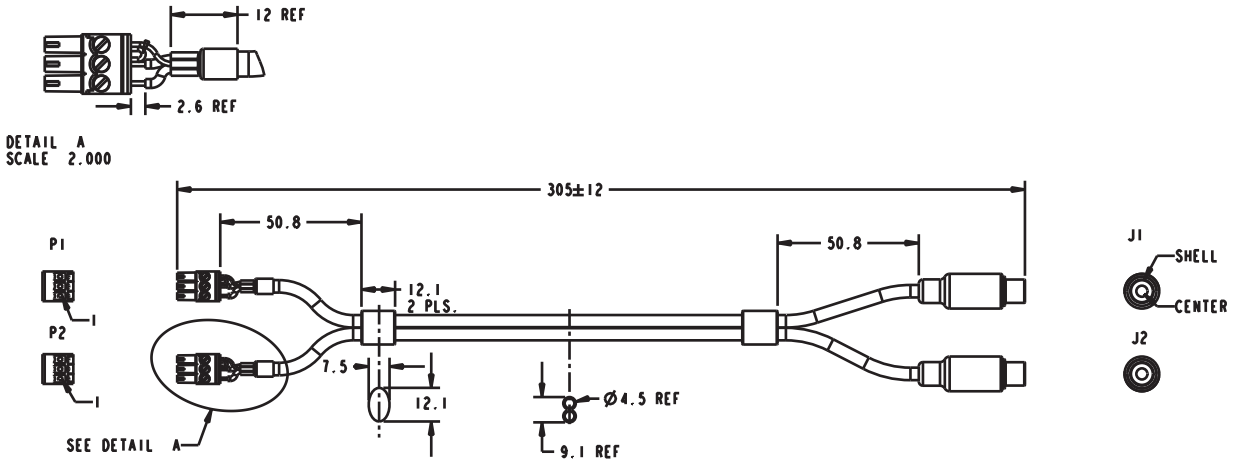
The Polycom RJ-45 connector pinout is custom. For best performance, follow the wiring tables shown in this document. If standard Ethernet cables are used, signal integrity cannot be guaranteed and degraded performance may occur, especially at longer lengths.

Audio Adapter Cable



This cable adapts the Polycom HDX system Phoenix audio connectors to standard RCA audio cables, such as the Audio Cable on page Audio Cable on page 2-50 . It is dual male Phoenix to dual female RCA connectors (red/white).

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23492-001	Yes



WIRING LIST				
PLUG	CONTACT	CONDUCTOR	CONTACT	JACK
P1	1	A+	CENTER	J1
	2	A-	SHELL	
	3	A DRAIN	—	
P2	1	B+	CENTER	J2
	2	B-	SHELL	
	3	B DRAIN	—	
INSTALL JUMPER BETWEEN CONTACT 2 AND CONTACT 3 OF BOTH P1 & P2 AS SHOWN IN DETAIL "A".				

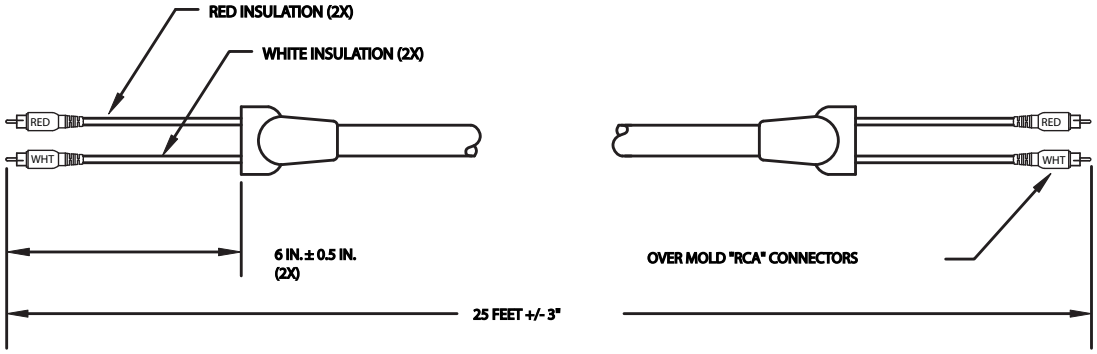
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

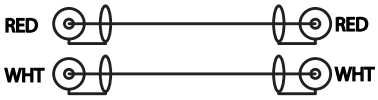
Audio Cable



This cable connects a Polycom HDX system to an external audio system. It is used with the Audio Adapter cable on page Audio Cable on page 2-50 . It has dual RCA connectors (red/white) on both ends. The maximum approved length for this cable is 100 ft (30 m).

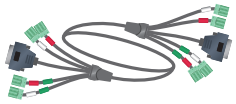
Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-09212-002	Yes
9 ft 10 in (3 m)	2457-09212-010	Yes





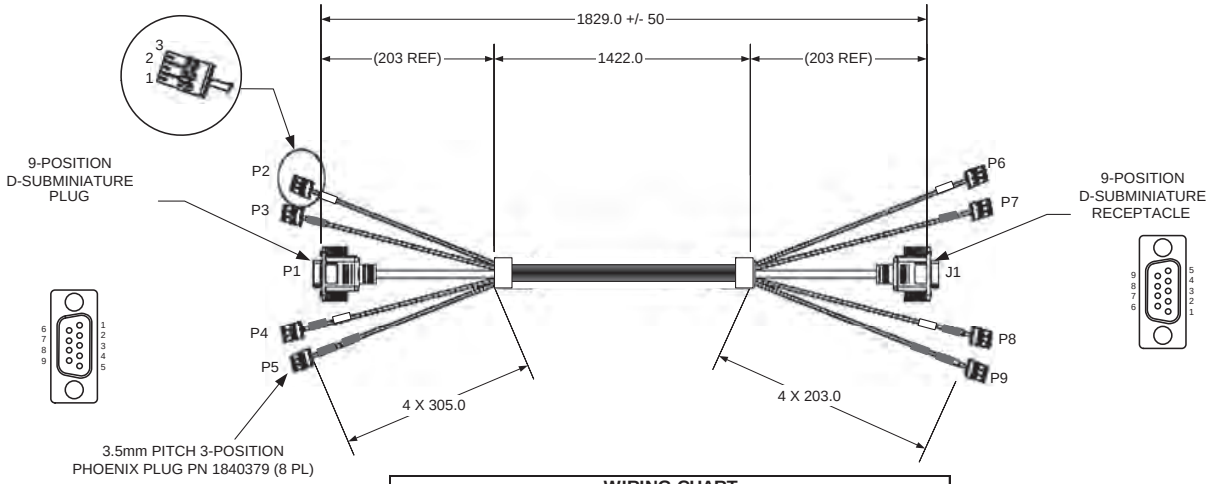
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

Vortex Cable



This cable connects a Polycom HDX system to a Polycom Vortex mixer. It has four mini-Phoenix connectors and one DB-9 connector on each end.

Length	Part Number	RoHS Compliant
6 ft (1.8 m)	2457-21978-200	Yes

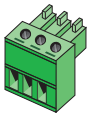


PIN #	
1	Signal +
2	Signal - (return)
3	Shield/darin wire/ground

WIRING CHART			
FROM	**TO**	**WIRE TYPE**	**WIRE USE**
P1-2	J1-2	A	SIGNAL
P1-3	J1-3		SIGNAL
P1-5	J1-5		SIGNAL
P1-7	J1-7		SIGNAL
P1-8	J1-8		SIGNAL
P1-SHELL	J1-SHELL		SHIELD
PINS 1, 4, 6, 9 ARE N/C			N/A
P2-1	P6-1	B	SIGNAL
P2-2	P6-2		SIGNAL
P2-3	P6-3		SHIELD (DRAIN WIRE)
P3-1	P7-1	B	SIGNAL
P3-2	P7-2		SIGNAL
P3-3	P7-3		SHIELD (DRAIN WIRE)
P4-1	P8-1	B	SIGNAL
P4-2	P8-2		SIGNAL
P4-3	P8-3		SHIELD (DRAIN WIRE)
P5-1	P9-1	B	SIGNAL
P5-2	P9-2		SIGNAL
P5-3	P9-3		SHIELD (DRAIN WIRE)

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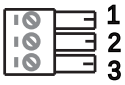
3.5mm Screw Cage Connector



This 3-pin connector connects audio input and output to the Polycom HDX system. It also connects the IR sensor input on a Polycom HDX system to an external IR receiver, such as Xantech models 780-80, 780-90, 480-00, and 490-90.

Length	Part Number	RoHS Compliant
—	1515-41597-001	Yes

Top View



Pinout for audio connector

PIN #	
1	Signal +
2	Signal - (return)
3	Shield/drain wire/ground

Pinout for IR connector

PIN #	
1	+12 V
2	Ground
3	IR signal

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The following table shows how to wire this connector for 2-wire connections, Phoenix to RCA.

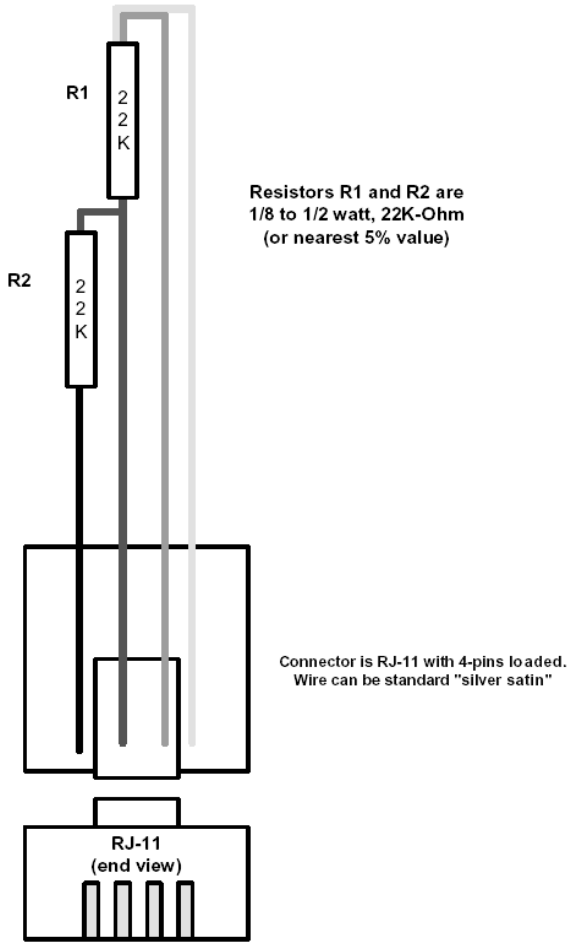
Phoenix Contact	RCA Contact
1	Center
2	Shell
3	—
Install jumper between contact 2 and contact 3 on the Phoenix connector.	

Subwoofer Volume Attenuator



This attenuator plugs into the Volume Control RJ-11 port on the subwoofer that comes with the Polycom stereo speaker kit. The attenuator is required for proper operation of the acoustic echo cancellation. It has an RJ-11 connector.

Length	Part Number	RoHS Compliant
3.5 in (9 cm)	1457-52415-001	—



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Serial Cables

Straight-Through Serial Cable

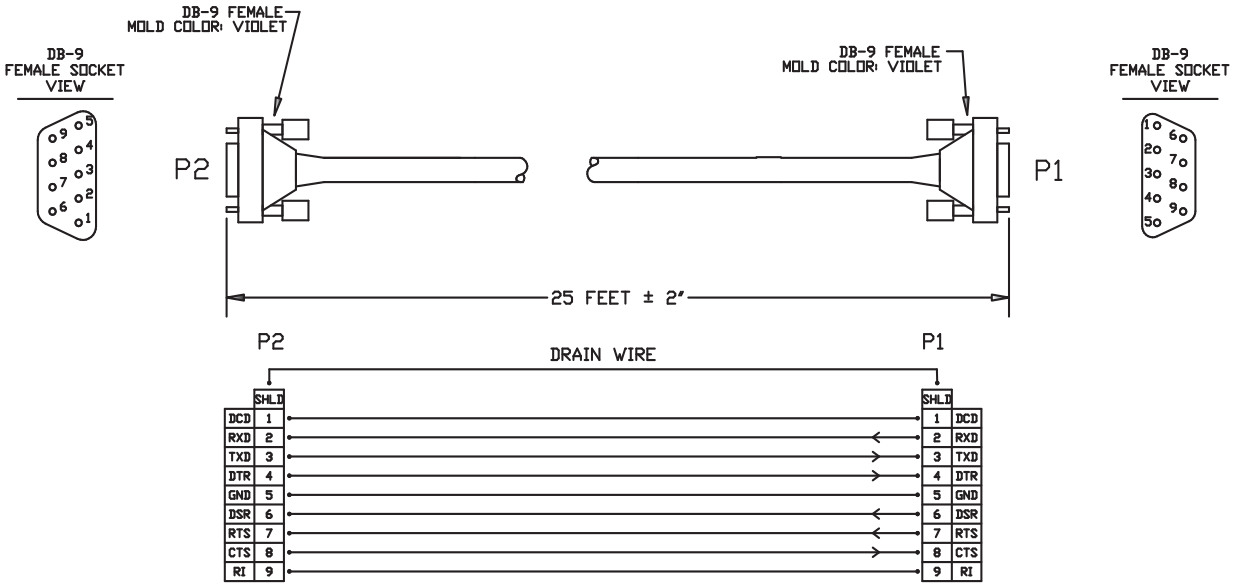


This cable connects a Polycom HDX system to a serial device. It has a DB-9 connector on each end. The maximum approved length for this cable is 100 ft (30 m).

Polycom does not recommend using this straight-through serial cable for RS-232 communication from a computer, Crestron system, or AMX device. Instead, for RS-232 communication, Polycom recommends using a cross-over cable with pin 2 wired to pin 3, pin 3 wired to pin 2, and pin 5 wired to pin 5. The other pins are not used.

If you choose to use this straight-through serial cable for RS-232 communication from a computer or Crestron system, the null modem adapter 1517-61577-001 on page Null Modem Adapter on page 2-56 is required. However, the null modem adapter does not work for RS-232 communication from AMX devices and will cause problems if you try to use it.

Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-09172-001	—



Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

The DB-9 male connector on the Polycom HDX system has the following connections.

Pin	Signal
1	Not used
2	Rx
3	Tx
4	DTR (tied to pin 6, DSR)
5	GND
6	DSR (tied to pin 4, DTR)
7	RTS
8	CTS
9	Not used

Most devices which connect to the serial port to control the Polycom HDX system via the API only require pins 2, 3, and 5. For more information and to verify the proper cabling, refer to the documentation for your control system.

Null Modem Adapter

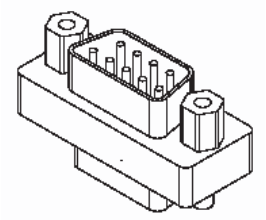


This adapter is used when connecting a Polycom HDX system to a serial device that transmits on pin 3 such as Crestron Pro2 processor. It is a male to female DB-9 adapter plug. This connection may require the straight-through serial cable (2457-09172-001) on page Straight-Through Serial Cable on page 2-54 .

Do not use this adapter with an AMX device. AMX systems support both RS-232 and RS-422. Therefore, for RS-232 support, use a null modem cross-over cable that carries only pins 2, 3, and 5, with pins 2 and 3 crossed.

Length	Part Number	RoHS Compliant
—	1517-61577-001	Yes

DB9F	DB9M
PIN 1&6	PIN 4
PIN 2	PIN 3
PIN 3	PIN 2
PIN 4	PIN 1&6
PIN 5	PIN 5
PIN 7	PIN 8
PIN 8	PIN 7
PIN 9	N/C



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3

Using the API

The Application Programming Interface (API) is a set of commands for advanced users who want to automate a Polycom HDX system. You can use the API by connecting a control system or computer RS-232 serial port to the Polycom HDX system. Or, you can use Telnet over the LAN to use the API.

Using the API with an RS-232 Interface

If you use an RS-232 interface to send API commands, you must connect and configure the control system or computer and the Polycom HDX system for serial communication.

Configuring the RS-232 Interface

If you use the API with a serial connection, make sure that the RS-232 interfaces of the Polycom HDX system and your computer are configured appropriately.

To access the RS-232 settings on your system, select **System > Admin Settings > General Settings > Serial Port**.

Configure the Baud Rate and RS-232 Mode options as follows:

Option	Configure this way on your computer	Configure this way on the Polycom HDX system
Baud Rate	Must be the same rate for both devices. Available rates are: • 9600 • 14400 • 19200 • 38400 • 57600 • 115200	
RS-232 Mode	—	Control

The RS-232 port on the Polycom HDX system supports the following modes:

- Camera PTZ
- Closed Caption
- Control
- Pass-Thru
- Vortex Mixer

In Control Mode, a device (for example, a computer) connected to the RS-232 port can control the system using the API.

In Pass-Thru Mode, the operational modes of both devices' RS-232 ports depend on the port configuration of each device.

Starting an API Session via an RS-232 Interface

After you have verified that the Polycom HDX system and your computer or control system are both configured appropriately, set up both devices as follows:

1. Power off the computer or control system and the Polycom HDX system.
2. Use an RS-232 cable to connect the computer or control system RS-232 port to an RS-232 port on the Polycom HDX system as shown in the following illustration. This connection may require the Null Modem Adapter on page 2-56.

   To connect a computer to a Polycom HDX 9006 system:



   To connect a computer to a Polycom HDX 9001, Polycom HDX 9002 or Polycom HDX 9004 systems:



3. Power on the computer or control system and the Polycom HDX system.
4. From the computer or control system, start a serial session using HyperTerminal or another appropriate utility.

Using the API with the Department of Defense (DoD) Security Profile Enabled

On a system with the Security Profile set to DoD, you can access the API commands using an RS-232 connection only, and must log in as an Admin or User.

The availability of certain API commands and parameters depends on whether you are logged in as Admin or User. For example, if you are logged in to the API session as Admin, you can set and get the ISDN area code using the `areacode` command. If you are logged in as User, you can only get the ISDN area code.

For a complete list of API commands and parameters available to the User and Admin IDs, refer to U.S. DoD DSN Deployment Guide for Polycom HDX Systems.

Using the API with a LAN Connection

If you have a computer connected to the LAN, you can send API commands to the Polycom HDX system via Telnet port 24.

1. On the computer, open a command line interface.
2. Start a Telnet session using the Polycom HDX system IP address and port number — for example, `telnet 10.11.12.13 24`.

   You cannot use Telnet to access the system if Security Mode is enabled.

Using the API Controller Code

In cooperation with the leading touch panel controller manufacturers, Polycom Video Division is proud to offer its own version of controller code designed to run on Crestron and AMX systems. This independent code base was developed specifically to address issues of code compatibility with video system software releases. It provides a fully executable controller program but also serves as a guideline for ongoing development using Polycom preferred methodology and commands.

To download the API controller code, refer to www.polycom.com/forms/amx_code.html. Additionally, AMX controller code or Crestron controller code is available for controlling the Polycom EagleEye HD camera. Companion documents are also available to further explain how to interface your controller with Polycom video systems and utilize the API efficiently.

Additional API Resources

The following online resources are available for your reference as you use the API.

Technical Support Contact Information

To contact Polycom Technical Support, go to www.polycom.com/support. This web site provides you with contact information for Polycom technical support. Use this web site when you need help using the API.

Feature Enhancement Request Web Site

Go to www.polycom.com/support, and navigate to **Feature Request**. This web site allows you to submit suggestions for feature enhancements. Use this web site when you have requests for future development of the Polycom API.

Video Test Numbers

Refer to www.polycom.com/videotest. This web site provides you with test numbers of various Polycom systems worldwide. Use this web site when you need to access video test numbers to use when testing your Polycom system.

Knowledge Base

Refer to the Knowledge Base at www.polycom.com/support. This tool allows you to search for user guides, release notes, and other forms of product documentation. You can also search for troubleshooting information and technical briefs. Use this web site when you need to access Polycom product documentation or tips.

A/V Professionals Web Site

Refer to www.polycom.com, and navigate to **Solutions > Industry Solutions > A/V Professionals**. This web site provides you with information and downloads, including API controller code downloads, that are specific to A/V professionals. Use this web site when you want to locate the latest information for integrators of Polycom products.

4

System Commands

This chapter describes the API commands for software version 2.6.

For an alphabetical list of all the commands, refer to the table of contents for this document.

About the API Commands

Syntax Conventions

The following conventions are used for the API command descriptions in this chapter. All of the commands are case sensitive.

Convention	Meaning
<param1|param2|param3>	Multiple valid parameters are enclosed in angle brackets and separated by the pipe ("|") character. Example: `allowdialing <yes|no|get>` shows that the `allowdialing` command must be followed by one of the parameters listed.
[param] ["param"]	Optional parameters are enclosed in square brackets. Quotation marks indicate strings to be supplied by the user. Example: teleareacode set ["telephone_area_code"] shows that you can supply a value for the area code, or omit it and let the default value apply. You do not need to enclose the actual value in quotes unless it contains a space.
{a..z}	A range of possible alphanumeric values is enclosed in braces. Example: `abk letter {a..z}` shows that the `abk` command can be used to return address book entries that begin with an alphanumeric character in the range specified. Example: `camera near {1..4}` shows that the `camera` command can be used to select camera 1, 2, 3, or 4 at the near site.
"x"	Quotation marks indicate strings to be supplied by the user. You do not need to enclose the value in quotes unless it contains a space.

Although the API command parser may accept the minimum number of characters in a command which makes it unique, you should always use the full command string.

Availability of Commands

The availability of API commands depends on the type of system, optional equipment installed or connected, security settings and the software version installed on the system. If a particular command is not supported on the system, the command returns feedback such as "`error: this command is not supported on this model`" or "`command is not available in current system configuration`". If a setting is configured by a provisioning service, the command may return feedback such as "`this setting is`

controlled by a provisioning service and cannot be changed". For more information about provisioned settings, refer to your provisioning service administrator.

Deprecated commands are included for backward compatibility only and are not recommended for use with this version. Suitable replacements are noted for each deprecated command.



API support is not available for:

- Telnet ports 23 and 24 when Security Mode is enabled.
- Software versions for the Joint Interoperability Test Command (JITC)certification

Command Response Syntax

When you send a command, the system returns responses using the following syntax, where <CR> indicates a carriage return and <LF> indicates a line feed.



The end of line (EOL) character for the echo is different for serial and LAN responses. The feedback examples below and elsewhere in the Integrator's Reference Manual are based on the serial response.

When Not Registered To Receive Notifications

When your system is not registered to receive any notifications and you send an API command, an API echo and API acknowledgement are returned.

For example:

- camera near 2 <CR>API command
  returns
  camera near 2<LF><CR>API echo
  camera near 2<CR><LF>API acknowledgement

When your system is not registered for notifications, always use the API acknowledgement (<CR><LF>), which indicates that the command was sent, accepted, and processed. Never use the API echo (<LF><CR>), which only indicates that you sent an API command but does not indicate whether the API command you sent was actually processed. For example, you receive an API echo even if you send an invalid API command. In this case, the API echo responds by echoing the invalid API command that you attempted to send.

When Registered To Receive Notifications

Registering for notifications adds extra line responses in the form of API registration responses. When your system is already registered to receive notifications and you send an API command that affects a notification, an API echo, API acknowledgement, and API registration response are returned. You

may receive multiple API registration responses if you are registered for multiple notifications that are affected by the API command you are currently sending.

For example, after your system has already been registered to receive camera notifications (the notify vidsourcechanges API command enables these notifications), the following responses are returned when you change the camera source using the camera near 1 API command:

- camera near 1 <CR>API command
  returns
  camera near 1<LF><CR>API echo
  camera near 1<CR><LF>API acknowledgement
  notification:vidsourcechange:near:1:Main:people<CR><LF>
  API registration response

When your system is registered for notifications, always use the API registration response (<CR><LF>), which indicates that the command was sent, accepted, and processed. Never use the API echo (<LF><CR>), which only indicates that you sent an API command but does not indicate whether the API command you sent was actually processed. For example, you receive an API echo even if you send an invalid API command. In this case, the API echo responds by echoing the invalid API command that you attempted to send.

End Of Line (EOL) Characters When Connected To The API Using A LAN Connection

In software versions prior to 2.5.0.6, the EOL characters for the echo responses on a system connected to the LAN and using a Telnet session were as follows:

```
camera near 2 <CR> API command
```

returns

```
camera near 2<CR><CR><LF> API echo
camera near 2<CR><LF> API acknowledgement
```

Starting with software version 2.5.0.6, the response changed to a single <CR>; for example:

```
camera near 2 <CR> API command
```

returns

```
camera near 2<CR><LF> API echo
camera near 2<CR><LF> API acknowledgement
```

The `telnetechoeol` command allows you to change the EOL characters of the API echo to the EOL characters of the serial port echo. See telnetechoeol on page 4-309 for more details.

Commands that Restart the System

Commands that Restart the System with a Prompt

- `reboot`

Commands that Restart the System without a Prompt

- `reboot yes`
- `reboot now`

Additional Tips

- The Polycom HDX system does not provide flow control. If the connection is lost through restarting the system or other means, you must re-establish the connection.
- The API processes one command at a time.
- Polycom does not recommend sending multiple commands simultaneously without a pause or delay between them.
- For commands with a single action and a single response: A delay of 200 milliseconds between commands is usually sufficient. Examples of these commands include the commands for switching cameras (camera near 1), sending content (vcbutton play), and checking the status of the audio mute (mute near get).
- For commands with a single action and a more extensive response: The time required to receive the response, and thus the time between commands, may be longer than 200 milliseconds. The response length, which can vary in size, determines the time required to receive the response. Examples of these commands include the commands for retrieving the local address book (addrbook all), the global address book (gaddrbook all), the list of system settings (displayparams), and system session information (whoami).
- When developing your program, always allow enough time for the response to the requested command to complete before sending another command.
- Do not send any commands while an incoming or outgoing call is being established.
- The API provides feedback status in two ways: registrations or polling.
- It is only required that you send registration and notification API commands once, because the registrations become written into Flash memory and are retained even upon restarting the system.

- Polycom recommends putting registrations in the initialization or startup of Crestron and AMX systems.
- Registrations are recommended over polling since they will provide status updates without having to query for changes.
- Never poll for registrations.
- Registrations are specific to the port from which they are registered. If you register for notifications from com port 1, registration will not be sent to com port 2 or Telnet port 24.

!

Executes a previously used command from the history list, starting with a specific number or letter.

Syntax

```
!"string"
!{1..64}
```

Parameter	Description
"string"	Specifies the most recent command from the history list that begins with this string.
{1..64}	Specifies the Nth command in the history list, where N is 1 through 64.

Feedback Examples

Assume the following command history.

- `gatewaynumber set 123456789`
  returns
  `gatewaynumber 123456789`
- `hangup video`
  returns
  `hanging up video call`
- `history`
  returns
  `1  gatewaynumber set 123456789`
  `2  hangup video`
- `h323name get`
  returns
  `h323name testip`

In this case, each of the following `!<letter or number>` commands executes the command and prints its output from the history list, as follows.

- `!1`
  returns
  `gatewaynumber set 123456789`
  `gatewaynumber 123456789`
- `!2`
  returns
  `hangup video`
  `hanging up video call`

- `!h`
  returns
  ```
  h323name get
  h323name testip
  ```
- `history`
  returns
  ```
  1 gatewaynumber set 123456789
  2 hangup video
  3 h323name get
  4 gatewaynumber set 123456789
  5 hangup video
  6 h323name get
  ```

See Also

For information about the history list, refer to the history on page 4-172 .

abk (deprecated)

Returns local directory (address book) entries. This command has been deprecated. Polycom recommends using the addrbook command on page 4-12 .

Syntax

```
abk all
abk batch {0..59}
abk batch search “pattern” “count”
abk batch define “start_no” “stop_no”
abk letter {a..z}
abk range “start_no” “stop_no“
abk refresh
```

Parameter	Description
all	Returns all the entries in the local directory.
batch	Returns a batch of 10 local directory entries. Requires a batch number, which must be an integer in the range {0..59}.
search	Specifies a batch search.
“pattern”	Specifies a pattern to match for the batch search.
“count”	Specifies the number of entries to list that match the pattern.
define	Returns a batch of entries in the range defined by “start_no” to “stop_no.”
“start_no”	Specifies the beginning of the range of entries to return.
“stop_no”	Specifies the end of the range of entries to return.
letter	Returns entries beginning with the letter specified from the range {a..z}. Requires one or two alphanumeric characters. Valid characters are: - _ / ; @ , . \ 0 through 9 a through z
range	Returns local directory entries numbered “start_no” through “stop_no”. Requires two integers.
refresh	Gets a more current copy of the local directory.

Feedback Examples

- abk all
  returns
  abk 0. Polycom HDX Demo 1 spd:384 num:1.700.5551212
  abk 1. Polycom HDX Demo 2 spd:384 num:192.168.1.101
  abk 2. Polycom HDX Demo 3 spd:384 num:192.168.1.102
  abk 3. Polycom HDX Demo 3 spd:384 num:1.700.5551213
  (and so on, until all entries in the local directory are listed, then:)
  abk all done
- abk batch 0
  returns
  abk 0. Polycom HDX Demo 1 spd:384 num:1.700.5551212
  abk 1. Polycom HDX Demo 2 spd:384 num:192.168.1.101
  abk 2. Polycom HDX Demo 3 spd:384 num:192.168.1.102
  (and so on, through the last entry in the batch of 10 directory entries, such as:)
  abk 9. Polycom HDX Demo 20 spd:384 num:192.168.1.120
  abk batch 0 done
- abk batch define 0 2
  returns
  abk 0. Polycom HDX Demo 1 spd:384 num:1.700.5551212
  abk 1. Polycom HDX Demo 2 spd:384 num:192.168.1.101
  abk 2. Polycom HDX Demo 3 spd:384 num:192.168.1.102
  abk batch define 0 2 done
- abk batch search Polycom 3
  returns
  abk 0. Polycom HDX Demo 1 spd:384 num:1.700.5551212
  abk 1. Polycom HDX Demo 2 spd:384 num:192.168.1.101
  abk 2. Polycom HDX Demo 3 spd:384 num:192.168.1.102
  abk batch search Polycom 3 done
- abk letter p
  returns
  abk 0. Polycom HDX Demo 1 spd:384 num:1.700.5551212
  abk 1. Polycom HDX Demo 2 spd:384 num:192.168.1.101
  abk 2. Polycom HDX Demo 3 spd:384 num:192.168.1.102
  abk 3. Polycom HDX Demo 3 spd:384 num:1.700.5551213
  abk 9. Polycom HDX Demo 20 spd:384 num:192.168.1.120
  abk letter p done
- abk range 0 2
  returns
  abk 0. Polycom HDX Demo 1 spd:384 num:1.700.5551212
  abk 1. Polycom HDX Demo 2 spd:384 num:192.168.1.101
  abk 2. Polycom HDX Demo 3 spd:384 num:192.168.1.102
  abk range 0 2 done

Comments

Beginning in software version 2.5, entries with multiple addresses (for example, an H.323 address and an ISDN number) return each address type on separate lines with an incremented record number. With previous software versions, entries with multiple addresses return each address type with the same record number.

`abk` entries are entries stored on the system. `gabk` entries are entries stored on the GDS. In the user interface, the address book and global address book features are referred to as the *directory* and the *global directory*.

See Also

To return global directory entries, use the gabk (deprecated) command on page 4-131 .

addrbook

Returns local directory (address book) entries.

Syntax

```
addrbook all
addrbook batch {0..59}
addrbook batch search "pattern" "count"
addrbook batch define "start_no" "stop_no"
addrbook letter {a..z}
addrbook range "start_no" "stop_no"
addrbook refresh
```

Parameter	Description
all	Returns all the entries in the local directory.
batch	Returns a batch of 10 local directory entries. Requires a batch number, which must be an integer in the range {0..59}.
search	Specifies a batch search.
"pattern"	Specifies a pattern to match for the batch search.
"count"	Specifies the number of entries to list that match the pattern.
define	Returns a batch of entries in the range defined by "start_no" to "stop_no."
letter	Returns entries beginning with the letter specified from the range {a..z}. Requires one or two alphanumeric characters. Valid characters are: - _ / ; @ , . \ 0 through 9 a through z
range	Returns local directory entries numbered "start_no" through "stop_no". Requires two integers.
"start_no"	Specifies the beginning of the range of entries to return.
"stop_no"	Specifies the end of the range of entries to return.
refresh	Gets a more current copy of the local directory.

Feedback Examples

- addrbook all
  returns
  addrbook 0. "Polycom HDX Demo 1" isdn_spd:384

```
isdn_num:1.700.5551212 isdn_ext:
addrbook 1. “Polycom HDX Demo 2” h323_spd:384
h323_num:192.168.1.101 h323_ext:7878
addrbook 2. “Polycom HDX Demo 3” sip_spd:384
sip_num:polycomhdx@polycom.com
addrbook 3. “Polycom HDX Demo 3” phone_num:1.512.5121212
(and so on, until all entries in the local directory are
listed, then:)
addrbook all done
```

- `addrbook batch 0`
  returns
  ```
  addrbook 0. “Polycom HDX Demo 1” isdn_spd:384
  isdn_num:1.700.5551212 isdn_ext:
  addrbook 1. “Polycom HDX Demo 2” h323_spd:384
  h323_num:192.168.1.101 h323_ext:7878
  addrbook 2. “Polycom HDX Demo 3” sip_spd:384
  sip_num:polycomhdx@polycom.com
  addrbook 3. “Polycom HDX Demo 3” phone_num:1.512.5121212
  (and so on, through the last entry in the batch of 10
  directory entries, such as:)
  addrbook 9. “Polycom HDX Demo 20” h323_spd:384
  h323_num:192.168.1.120 h323_ext:
  addrbook batch 0 done
  ```

- `addrbook batch define 0 2`
  returns
  ```
  addrbook 0. “Polycom HDX Demo 1” isdn_spd:384
  isdn_num:1.700.5551212 isdn_ext:
  addrbook 1. “Polycom HDX Demo 2” h323_spd:384
  h323_num:192.168.1.101 h323_ext:7878
  addrbook 2. “Polycom HDX Demo 3” sip_spd:384
  sip_num:polycomhdx@polycom.com
  addrbook batch define 0 2 done
  ```

Comments

Beginning in software version 2.5, entries with multiple addresses (for example, an H.323 address and an ISDN number) return each address type on separate lines with an incremented record number. With previous software versions, entries with multiple addresses return each address type with the same record number. `addrbook` entries are stored in the local directory (address book).

See Also

To return global directory entries use the gaddrbook command on page 4-136 .

addressdisplayedingab

Specifies whether to display the system address in the global directory.

Syntax

```
addressdisplayedingab get
addressdisplayedingab private
addressdisplayedingab public
```

Parameter	Description
`get`	Returns the current setting.
`private`	Specifies not to display the system address in the global directory.
`public`	Displays the system address in the global directory.

Feedback Examples

- `addressdisplayedingab private`
  returns
  `addressdisplayedingab private`
- `addressdisplayedingab public`
  returns
  `addressdisplayedingab public`
- `addressdisplayedingab get`
  returns
  `addressdisplayedingab public`

advnetstats

Gets advanced network statistics for a call connection.

Syntax

```
advnetstats [{0..n}]
```

Parameter	Description
{0..n}	Specifies a connection in a multipoint call, where n is the maximum number of connections supported by the system. 0 is call #1, 1 is call #2, 2 is call #3, and so on. Select a number from this range to specify a remote site call for which you want to obtain advanced network statistics. Omit this parameter when retrieving statistics for a point-to-point call.

Feedback Examples

- `advnetstats 1`
  returns
  ```
  call:1 tar:24k rar:24k tvr:64.3k rvr:104k
  tvru:63.8k rvru:114.6k tvfr:15.0 rvfr:15.0 vfe ---
  tapl:66 rapl:0 taj:46mS raj:40mS tvpl:122 rvpl:0
  tvj:21mS rvj:60mS dc:--- rsid:Polycom_4.2 ccaps:E9P
  ```
- Returned parameters are:
  ```
  tar=Transmit audio rate
  rar=Receive audio rate
  tvr=Transmit video rate
  rvr=Receive video rate
  tvru=Transmit video rate used
  rvru=Receive video rate used
  tvfr=Transmit video frame rate
  rvfr=Receive video frame rate
  vfe=Video FEC errors
  tapl=Transmit audio packet loss (H.323 calls only)
  tlsdp=Transmit LSD protocol (H.320 calls only)
  rapl=Receive audio packet loss (H.323 calls only)
  rlsdp=Receive LSD protocol (H.320 calls only)
  taj=Transmit audio jitter (H.323 calls only)
  tlsdr=Transmit LSD rate (H.320 calls only)
  raj=Receive audio jitter (H.323 calls only)
  rlsd=Receive LSD rate (H.320 calls only)
  tvpl=Transmit video packet loss (H.323 calls only)
  tmlpp=Transmit MLP protocol (H.320 calls only)
  rvpl=Receive video packet loss (H.323 calls only)
  ```

```
rmlpp=Receive MLP protocol (H.320 calls only)
tvj=Transmit video jitter (H.323 calls only)
tmlpr=Transmit MLP rate (H.320 calls only)
rvj=Receive video jitter (H.323 calls only)
rmlpr=Receive MLP rate (H.320 calls only)
dc=Encryption information
rsid=Remote system id
ccaps=Content capability, where possible responses include
“9” (H.239), “E” (enterprise dual streams), “N” (none), and
“P” (content over the people stream)
```

See Also

To return network statistics for a call, use the netstats command on page 4-233 .

alertusertone

Sets or gets the tone used for user alerts.

Syntax

```
alertusertone <get|1|2|3|4>
```

Parameter	Description
get	Returns the current setting.
1|2|3|4	Sets the user alert to the corresponding tone.

Feedback Examples

- `alertusertone 1`
  returns
  `alertusertone 1`
- `alertusertone get`
  returns
  `alertusertone 1`

alertvideotone

Sets the tone used for incoming video calls.

Syntax

```
alertvideotone <get|1|2|3|4|5|6|7|8|9|10>
```

Parameter	Description
get	Returns the current setting.
1|2|3|4|5|6|7|8|9|10	Sets the incoming video alert to the corresponding tone.

Feedback Examples

- `alertvideotone 1`
  returns
  `alertvideotone 1`
- `alertvideotone get`
  returns
  `alertvideotone 1`

all register

Registers for most commonly-used user registration events.

Syntax

```
all register
```

Feedback Examples

- `all register`
  returns
  ```
  callstate registered
  camera registered
  chaircontrol registered
  linestate registered
  mute registered
  pip registered
  popupinfo registered
  preset registered
  screen registered
  vcbutton registered
  volume registered
  sleep registered
  ```

Comments

Registers changes to any of the following types of parameters:

- Current near-site or far-site source
- State of privacy
- Current volume level
- Active camera presets
- Status of point-to-point or multipoint calls
- Status of physical ISDN/IP connection to codec
- PIP state
- Chair control
- System information

This command is particularly useful when two different control systems are being used simultaneously, such as the web and API commands. The system maintains the registration changes through restarts.

To register for events not included in this feedback, refer to the specific registration command.

This is a one time registration command that is retained in flash memory. Sending the command a second time results in the following feedback response:

- ```
  info: event/notification already active:callstate
  info: event/notification already active:camera
  info: event/notification already active:chaircontrol
  info: event/notification already active:chaircontrol
  info: event/notification already active:linestate
  info: event/notification already active:mute
  info: event/notification already active:pip
  info: event/notification already active:popupinfo
  info: event/notification already active:preset
  info: event/notification already active:screen
  info: event/notification already active:vcbutton
  info: event/notification already active:volume
  info: event/notification already active:sleep
  ```

Polycom recommends you use this command in place of the registerall (deprecated) command on page 4-267 .
  ```

all unregister

Simultaneously unregisters all registered user feedback so that the API no longer reports changes to the parameters.

Syntax

```
all unregister
```

Feedback Examples

- `all unregister`
  returns
  ```
  callstate unregistered
  camera unregistered
  chaircontrol unregistered
  linestate unregistered
  chaircontrol unregistered
  mute unregistered
  pip unregistered
  popupinfo unregistered
  preset unregistered
  screen unregistered
  vcbutton unregistered
  volume unregistered
  sleep unregistered
  ```

Comments

The following types of parameters are unregistered:

- Current near-site or far-site source
- State of privacy
- Current volume level
- Active camera presets
- Status of point-to-point or multipoint calls
- Status of physical ISDN/IP connection to codec
- PIP state
- Chair control
- System information

Polycom recommends you use this command in place of the unregisterall (deprecated) command on page 4-313 .

allowabkchanges

Sets or gets the Allow Directory Changes setting.

Syntax

```
allowabkchanges <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the Allow Directory Changes setting.
no	Disables the Allow Directory Changes setting.

Feedback Examples

- `allowabkchanges no`
  returns
  `allowabkchanges no`
- `allowabkchanges yes`
  returns
  `allowabkchanges yes`
- `allowabkchanges get`
  returns
  `allowabkchanges yes`

Comments

If this option is enabled, the user has access to the **New**, **Edit**, and **Delete** operations in the directory.

allowcamerapresetssetup

Sets or gets whether users are allowed to change camera presets.

Syntax

```
allowcamerapresetssetup <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Allows users to change camera presets.
no	Prevents users from changing camera presets.

Feedback Examples

- `allowcamerapresetssetup no`
  returns
  `allowcamerapresetssetup no`
- `allowcamerapresetssetup yes`
  returns
  `allowcamerapresetssetup yes`
- `allowcamerapresetssetup get`
  returns
  `allowcamerapresetssetup yes`

allowdialing

Sets or gets the ability to dial out from the system.

Syntax

```
allowdialing <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Allows users to place calls.
no	Disables dialing so that the system can only receive calls.

Feedback Examples

- `allowdialing no`
  returns
  `allowdialing no`
- `allowdialing yes`
  returns
  `allowdialing yes`
- `allowdialing get`
  returns
  `allowdialing yes`

Comments

`allowdialing no` removes the dialing field and marquee text from the Home screen.

See Also

The ability to place calls is also controlled by the dialingdisplay command on page 4-97 .

allowmixedcalls

Sets or gets the ability to place and receive mixed protocol multipoint calls (IP and ISDN). It allows the administrator to disable this ability for security reasons.

Syntax

```
allowmixedcalls <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables mixed IP and ISDN calls.
no	Disables mixed IP and ISDN calls.

Feedback Examples

- `allowmixedcalls no`
  returns
  `allowmixedcalls no`
- `allowmixedcalls yes`
  returns
  `allowmixedcalls yes`
- `allowmixedcalls get`
  returns
  `allowmixedcalls yes`

allowusersetup

Adds or removes the **User Settings** icon on the System screen, which allows users to access the User Settings screen.

Syntax

```
allowusersetup <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the User Settings icon.
no	Disables the User Settings icon.

Feedback Examples

- `allowusersetup no`
  returns
  `allowusersetup no`
- `allowusersetup yes`
  returns
  `allowusersetup yes`
- `allowusersetup get`
  returns
  `allowusersetup yes`

Comments

This command is useful to prevent users from changing the user settings.

amxdd

Sets or gets the AMX Device Discovery beacon.

Syntax

```
amxdd get
amxdd <on|off>
```

Parameter	Description
get	Returns the current setting.
on	Turns on the AMX Device Discovery beacon.
off	Turns off the AMX Device Discovery beacon.

Feedback Examples

- `amxdd get`
  returns
  `amxdd off`
- `amxdd on`
  returns
  `amxdd on`

Comments

The default setting for this signal is "`off`".

Turning on this command sends out the AMX Device Discovery beacon over the LAN interface. On serial port API sessions, a similar feature is always enabled. This command does not affect that feature on serial port API sessions.

answer

Answers incoming video or phone calls (analog voice or ISDN voice).

Syntax

```
answer <video|phone>
```

Parameter	Description
video	Answers incoming video calls when Auto Answer Point-to-Point Video or Auto Answer Multipoint Video is set to No.
phone	Answers incoming analog phone or ISDN voice calls.

Feedback Examples

- `answer video`
  returns
  `answer incoming video call failed`
- `answer video`
  returns
  `answer incoming video call passed`
- `answer phone`
  returns
  `answer incoming phone call failed`
- `answer phone`
  returns
  `answer incoming phone call passed`

areacode

Sets or gets the area code for all ISDN lines. This command is only applicable if you have a network interface connected to your system.

Syntax

```
areacode get
areacode set “areacode”
```

Parameter	Description
get	Returns the area code information.
set	Sets the ISDN area code when followed by the area code parameter. To erase the current setting, omit “areacode”.
“areacode”	Area code to use for all lines.

Feedback Examples

- `areacode set 212`
  returns
  `areacode 212`
- `areacode get`
  returns
  `areacode 212`

Comments

This area code is associated with the area where the system is used.

audiometer

Queries and displays audio levels, once per second.

Syntax

```
audiometer
<micleft|micright|lineinleft|lineinright|lineoutleft|lineoutright|
contentinleft|contentinright|vcrinleft|vcrinright|vcroutleft|
vcroutright|farendleft|farendright|off>
```

Parameter	Description
micleft	Measures the audio strength of the signal coming from all microphones assigned to the "left" microphone channel.
micright	Measures the audio strength of the signal coming from all microphones assigned to the "right" microphone channel.
lineinright	Measures the audio strength of the signal connected to the right line input port.
lineinleft	Measures the audio strength of the signal connected to the left line input port.
lineoutleft	Measures the audio strength of the signal on the left main audio output port.
lineoutright	Measures the audio strength of the signal on the right main audio output port.
contentinleft	Measures the audio strength of the signal on the left content audio input port.
contentinright	Measures the audio strength of the signal on the right content audio input port.
vcrinleft	Measures the strength of the signal on the left VCR/DVD audio input port.
vcrinright	Measures the strength of the signal on the right VCR/DVD audio input port.
vcroutleft	Measures the strength of the signal on the left VCR/DVD audio output port.
vcroutright	Measures the strength of the signal on the right VCR/DVD audio output port.

Parameter	Description
farendright	Measures the strength of the signal on the right channels of all far-site audio inputs.
farendleft	Measures the strength of the signal on the left channels of all far-site audio inputs.
off	Turns off audiometer output.

Feedback Examples

- audiometer micleft
  returns
  audiometer micleft level peak:-19
  audiometer micleft level peak:-19
  audiometer micleft level peak:-19
  audiometer micleft level peak:-20
  audiometer micleft level peak:-20
  audiometer micleft level peak:-20
  audiometer micleft level peak:-20
  and so on until you enter
  audiometer off
- audiometer micright
  returns
  audiometer micright level peak:-19
  audiometer micright level peak:-19
  audiometer micright level peak:-19
  audiometer micright level peak:-20
  audiometer micright level peak:-20
  audiometer micright level peak:-20
  audiometer micright level peak:-20
  and so on until you enter
  audiometer off

Comments

Audio level of a port is measured on the spectrum ranging from -20 dB to +20 dB. Use the audiometer command for a different port to stop monitoring a previous port and to begin monitoring a new port. To turn off monitoring, use audiometer off and watch for the audiometer off acknowledgement or registration response, which confirms that the audiometer monitoring is turned off.

audiotransmitlevel

Sets or gets the audio volume transmitted to the far site, or notification of transmit level changes.

Syntax

```
audiotransmitlevel <get|up|down|register|unregister>
audiotransmitlevel set {-20..30}
```

Parameter	Description
get	Returns the current setting.
up	Sets the volume 1 decibel higher than the current setting.
down	Sets the volume 1 decibel lower than the current setting.
register	Registers to receive notification when audio transmit level changes.
unregister	Unregisters to receive notification when audio transmit level changes.
set	Sets the volume to the specified dB level. Valid values are: {-20..30}.

Feedback Examples

- `audiotransmitlevel set 2`
  returns
  `audiotransmitlevel 2`
- `audiotransmitlevel get`
  returns
  `audiotransmitlevel 2`
- `audiotransmitlevel up`
  returns
  `audiotransmitlevel 3`
- `audiotransmitlevel down`
  returns
  `audiotransmitlevel 2`
- `audiotransmitlevel register`
  returns
  `audiotransmitlevel registered`

- `audiotransmitlevel unregister`
  returns
  `audiotransmitlevel unregistered`

autoanswer

Sets or gets the Auto Answer Point-to-Point Video mode, which determines how the system will handle an incoming call in a point-to-point video conference.

Syntax

```
autoanswer <get|yes|no|donotdisturb>
```

Parameter	Description
yes	Allows any incoming video call to be connected automatically. This is the default setting.
no	Prompts the user to answer incoming video calls.
donotdisturb	Notifies the user of incoming calls, but does not connect the call. The site that placed the call receives a Far Site Busy (H.320) or Call Rejected (H.323) code.
get	Returns the current setting.

Feedback Examples

- `autoanswer` yes
  returns
  `autoanswer` yes
- `autoanswer` no
  returns
  `autoanswer` no
- `autoanswer` get
  returns
  `autoanswer` no
- `autoanswer donotdisturb`
  returns
  `autoanswer donotdisturb`

Comments

If `autoanswer` is set to `no` or `donotdisturb`, you must rely on API session notifications to answer inbound calls.

autoshowcontent

Specifies whether to send content automatically when a computer is connected to the system.

Syntax

```
autoshowcontent <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Sets the system to send content automatically when a computer is connected to the system.
off	Sets the system to not send content automatically.

Feedback Examples

- `autoshowcontent on`
  returns
  `autoshowcontent on`
- `autoshowcontent off`
  returns
  `autoshowcontent off`
- `autoshowcontent get`
  returns
  `autoshowcontent off`

backlightcompensation

Sets or gets the Backlight Compensation mode.

Syntax

```
backlightcompensation <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables Backlight Compensation. The camera automatically adjusts for a bright background.
no	Disables the option.

Feedback Examples

- `backlightcompensation yes`
  returns
  `backlightcompensation yes`
- `backlightcompensation no`
  returns
  `backlightcompensation no`
- `backlightcompensation get`
  returns
  `backlightcompensation no`

basicmode

Sets or gets the Basic Mode configuration, a limited operating mode that uses H.261 for video and G.711 for audio. Basic mode provides administrators with a workaround for interoperability issues that cannot be solved using other methods.

Syntax

```
basicmode <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Enables basic mode.
off	Disables basic mode.

Feedback Examples

- `basicmode on`
  returns
  `basicmode on`
- `basicmode off`
  returns
  `basicmode off`
- `basicmode get`
  returns
  `basicmode off`

bri1enable, bri2enable, bri3enable, bri4enable

Sets or gets the configuration of the specified ISDN BRI line. This command is only applicable if you have a BRI network interface connected to your system.

Syntax

```
bri1enable <get|yes|no>
bri2enable <get|yes|no>
bri3enable <get|yes|no>
bri4enable <get|yes|no>
```

Parameter	Description
get	Returns the status of the BRI line—yes if enabled, no if disabled.
yes	Enables the BRI line.
no	Disables the BRI line.

Feedback Examples

- `bri1enable yes`
  returns
  `bri1enable yes`
- `bri1enable no`
  returns
  `bri1enable no`
- `bri1enable get`
  returns
  `bri1enable no`

briallenable

Sets or gets the configuration of all ISDN BRI lines. This command is only applicable if you have a BRI network interface connected to your system.

Syntax

```
briallenable <get|yes|no>
```

Parameter	Description
get	Returns the status of all BRI lines—yes if enabled, no if disabled.
yes	Enables all BRI lines.
no	Disables all BRI lines.

Feedback Examples

- `briallenable` yes
  returns
  ```
  bri1enable yes
  bri2enable yes
  bri3enable yes
  bri4enable yes
  ```
- `briallenable` no
  returns
  ```
  bri1enable no
  bri2enable no
  bri3enable no
  bri4enable no
  ```
- `briallenable get`
  returns
  ```
  bri1enable no
  bri2enable no
  bri3enable no
  bri4enable no
  ```

Comments

`briallenable yes` only enables lines where the directory numbers have been populated.

button

Simulates Polycom remote control buttons.

Syntax

```
button <#|*|0|1|2|3|4|5|6|7|8|9|.>
button <down|left|right|select|up>
button <auto|back|call|far|graphics|hangup|near>
button <help|mute|volume+|volume-|lowbattery|zoom+|zoom->
button <pickedup|putdown>
button <camera|delete|directory|home|keyboard|period|pip|preset>
button <info|menu|slides|option>
button "valid_button" ["valid_button" ...]
button <mmstop|mmplay|mmpause|mmrecord|mmforward|mmrewind>
```

Parameter	Description
.	Types a period (dot) if the cursor is on a text field.
#	Sends the # button signal to the user interface.
*	Sends the * button signal to the user interface.
["valid_button" ...]	Sends one or more remote control button signals.
0|1|2|3|4|5|6|7|8|9	Sends the corresponding numeric button signal to the user interface.
auto	Sends the Auto button signal to the user interface.
back	Simulates the Back button on multiple-page screens.
call	Sends the Call button signal to the user interface.
camera	Sends the Camera button signal to the user interface.
delete	Sends the Delete button signal to the user interface.
directory	Sends the Directory button signal to the user interface.
down	Sends the down arrow button signal to the user interface.
far	Sends the Far button signal to the user interface.
graphics	Sends the Content button signal to the user interface.
hangup	Sends the Hang Up button signal to the user interface.
help	Sends the Help button signal to the user interface.
home	Sends the Home button signal to the user interface.
info	Sends the Info button signal to the user interface.

Parameter	Description
keyboard	Brings up the on-screen keyboard if the cursor is on a text field.
left	Sends the left arrow button signal to the user interface.
lowbattery	Simulates a low battery alert for the remote control.
menu	Sends the **Menu** button signal to legacy systems. Deprecated. Polycom recommends using back instead of this button.
mmstop	Stops the video stream on the RSS-2000™.
mmplay	Plays the video stream on the RSS-2000.
mmpause	Pauses the video stream on the RSS-2000.
mmrecord	Records the video stream on the RSS-2000.
mmforward	Fast forwards the video stream on the RSS-2000.
mmrewind	Rewinds the video stream on the RSS-2000.
mute	Sends the **Mute** button signal to the user interface, causing a toggle of mute state.
near	Sends the **Near** button signal to the user interface.
option	Sends the **Option** button signal to the user interface.
period	Types a period (dot) if the cursor is on a text field.
pickedup	Sends a signal indicating that the remote control has been picked up.
pip	Sends the **Display** button signal to the user interface.
preset	Sends the **Preset** button signal to the user interface.
putdown	Sends a signal indicating that the remote control has been set down.
right	Sends the right arrow button signal to the user interface.
select	Sends the **Select** (center button) button signal to the user interface.
slides	Sends the **Slides** button signal to legacy systems. Deprecated. Polycom recommends using graphics instead of this button.
up	Sends the up arrow button signal to the user interface.
volume-	Sends the volume - button signal to the user interface.

Parameter	Description
volume+	Sends the volume + button signal to the user interface.
zoom-	Sends the zoom - button signal to the user interface.
zoom+	Sends the zoom +button signal to the user interface.

Feedback Examples

- `button up`
  sends the up arrow command to the user interface and returns
  `button up`
- `button near left right call`
  is valid, sends the near, left arrow, right arrow, and call commands to the user interface, and returns
  `button near`
  `button left`
  `button right`
  `button call`
- `button mmstop`
  returns
  `button mmstop`
- `button mmplay`
  returns
  `button mmplay`

The command checks for invalid input and reports button responses as they are processed. One of three status values is returned when the command is issued for multiple buttons:

- succeeded—all buttons are valid
- failed—all input is invalid and none can perform a valid action
- completed—some are invalid, and responses specify each as valid or invalid

For example:

- `button camera right center select`
  returns
  `button camera`
  `button right`
  `error: button center not a recognized command`
  `button select`
  `button completed`

Long `button` command sequences will complete before a second command is considered. Feedback for `button` command sequences that include multiple buttons show only the first button name.

Comments

Several parameters can be combined in the same command in any order.

The button commands are not recommended. When possible, use another API command instead of the button commands, which rely on the current organization of the user interface.

Use `button pip` to send the **Display** button signal to the user interface.

Feedback responses from RSS-2000 parameters are not from the RSS-2000 and are not an indication that you are in control of the RSS-2000. You can issue the commands when you are not connected to the RSS-2000 and still receive feedback.

calendardomain

Gets and sets the domain used by the calendaring service to log in to the Microsoft® Exchange server.

Syntax

```
calendardomain get
calendardomain set "domain"
```

Parameter	Description
`get`	Returns the domain used by the calendaring service.
`set`	Sets the domain to be used by the calendaring service.
`"domain"`	The domain to be used by the calendaring service.

Feedback Examples

- `calendardomain get`
  returns
  `calendardomain smithfield`
- `calendardomain set fairview`
  returns
  `calendardomain fairview`

See Also

To enable or disable the calendaring service, use the calendarregisterwithserver command on page 4-53 . To configure the Microsoft Exchange server address used by this service use the calendarserver command on page 4-56 . To set the resource mailbox to be monitored, use the calendarresource command on page 4-55 .

calendarmeetings

Retrieves scheduled meetings within the given time span or with the given meeting ID.

Syntax

```
calendarmeetings list “starttime” [“endtime”]
calendarmeetings info “meetingid”
```

Parameter	Description
`list`	Returns the meeting id or ids for meetings that start at or after the specified start time and end time.
`“starttime”`	The start time of meetings to be retrieved. The start time can be entered in one of the following formats: • YYYY-MM-DD:HH:MM • today:HH:MM • today • tomorrow:HH:MM • tomorrow The times are interpreted to be local times in the time zone the system was configured for.
`“endtime”`	The end time of meetings to be retrieved. This parameter can be given in the following format. • YYYY-MM-DD:HH:MM • today:HH:MM • today • tomorrow:HH:MM • tomorrow The times are interpreted to be local times in the time zone the system was configured for.
`info`	Retrieves meeting details for scheduled meetings when the Polycom HDX system is registered with the calendaring service. Returns information such as the location, subject and organizer of the meeting.
`“meetingid”`	The ID of the meeting for which you want to find details.

Feedback Examples

- `calendarmeetings list tomorrow`
  returns
  ```
  calendarmeetings list begin
  meeting|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2
  /ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAk09LtAA
  ACZpKWAADe7hJleQIOS7j2mzRJxkLKAAADI/F8BAAA|2010-03-30:08:30
  |2010-03-30:09:00|Discuss Budget
  meeting|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2
  /ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAk09LtAA
  ACZpKWAADe7hJleQIOS7j2mzRJxkLKAAAA/9PhAAAQ|2010-03-30:09:00
  |2010-03-30:09:30|Program Review
  meeting|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2
  /ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAk09LtAA
  ACZpKWAABZ29fOUOS5Q6xzZ1lzDDNnAABFQAQ3AAAQ|2010-03-30:10:00
  |2010-03-30:11:00|Customer Care Commitment Meeting
  calendarmeetings list end
  ```

- `calendarmeetings list 2010-03-30:08:00 2010-04-01:17:00`
  returns
  ```
  calendarmeetings list begin
  meeting|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2
  /ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAk09LtAA
  ACZpKWAADe7hJleQIOS7j2mzRJxkLKAAADI/G8AAAQ|2010-03-30:08:30
  |2010-03-30:09:00|Bug Scrub
  meeting|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2
  /ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAk09LtAA
  ACZpKWAABZ29fOUOS5Q6xzZ1lzDDNnAABFQARCAAAQ|2010-03-30:11:30
  |2010-03-30:12:30|HDX/IP7000/Conference Coordination
  meeting|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2
  /ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAk09LtAA
  ACZpKWAABZ29fOUOS5Q6xzZ1lzDDNnAABFQAQ3AAAQ|2010-04-01:16:30
  |2010-04-01:17:00|Customer Care Commitment Meeting
  calendarmeetings list end
  ```

- calendarmeetings info AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2/ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAkO9LtAAACZpKWAADe7hJleQIOS7j2mzRJxkLKAAADI/G8AAAQ
  returns
  calendarmeetings info start
  id|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2/ndgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAkO9LtAAACZpKWAADe7hJleQIOS7j2mzRJxkLKAAADI/G8AAAQ
  2010-03-30:08:30|2010-03-30:09:00|dialable|public
  organizer|Russell Bell
  location|Russell's RMX Meeting Room - IP Video Number: 123456 (if registered to corp GK); 888-123-4567/978-123-4567 with passcode: #760900
  subject|Bug Scrub
  dialingnumber|video|733397@vsgwstdma01.r13.vsg.local2|sip
  dialingnumber|video|733397|h323
  dialingnumber|audio|48527
  meetingpassword|none
  attendee|Russell Bell
  attendee|Rebecca Sharp
  calendarmeetings info end
- calendarmeetings info AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMn4AUcVgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAkO9LtAAACZpKWAADe7hJleQIOS7j2mzRJxkLKAAAA3OGwAAAQ
  returns
  calendarmeetings info start
  id|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMn4AUcVgARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAkO9LtAAACZpKWAADe7hJleQIOS7j2mzRJxkLKAAAA3OGwAAAQ
  2010-04-01:10:30|2010-04-01:11:00|nondialable|private
  organizer|Rebecca Sharp
  location|Red River conference room
  subject|Escalations Review
  attendee|Roslin Adam
  attendee|Conf.AUS.Red River
  attendee|Claudia Nevarez
  calendarmeetings info end

Comments

If the meeting's end time is more than 31 days from the meeting's start time, the response is shortened to `starttime+31days`, and meetings that start in that time span are returned.

If an API client is logged in with user-level credentials and if the Polycom HDX system is configured to hide private meeting information on the web interface, the API hides the information from the API client and shows the subject of the meeting as "Private Meeting"; for example:

```
calendarmeetings list begin
meeting|AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMn4AUcVg
ARgAAAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAk09LtAAACZpKWAA
De7hJleQIOS7j2mzRJxkLKAAAA3OGwAAAQ|2009-09-25:08:30|2009-09-25:09:
15|private meeting
calendarmeetings list end
```

If a Polycom HDX system is configured to provide private meeting information on the web interface, the API provides the same information to the API client; for example:

```
calendarmeetings list begin
meeting|AAAZAGV4Y2H1C2VYMDFACJEZLNZZZY5SB2NHBDIARGAAAAAAKQKC8WW
3CUWGCPM+AP66WQCASOLXUYMOMEKYBQJJ1ZOMBWASDQANHQAASOLXUYMOMEKYBQ
JJ1ZOMBWASDQASVGAA|2009-09-25:08:30|2009-09-25:09:15| Demo
calendarmeetings list end
```

If the API client is logged in with admin-level credentials, the API provides private meeting information to the API client, regardless of the HDX configuration for displaying private meeting information; for example:

```
calendarmeetings list begin
meeting|AAAZAGV4Y2H1C2VYMDFACJEZLNZZZY5SB2NHBDIARGAAAAAAKQKC8WW
3CUWGCPM+AP66WQCASOLXUYMOMEKYBQJJ1ZOMBWASDQANHQAASOLXUYMOMEKYBQ
JJ1ZOMBWASDQASVGAA|2009-09-25:08:30|2009-09-25:09:15|Release plan
meeting|AAAZAGV4Y2H1C2VYMDFACJEZLNZZZY5SB2NHBDIARGAAAAAAKQKC8WW
3CUWGCPM+AP66WQCASOLXUYMOMEKYBQJJ1ZOMBWASDQANHQAASOLXUYMOMEKYBQ
JJ1ZOMBWASDQASVGAA|2009-09-23:11:00|2009-09-23:11:45|Product roadmap
for 2010
calendarmeetings list end
```

The calendaring service must be registered with Microsoft Exchange server for the calendarmeetings command to work successfully. If the calendar credentials are invalid, the server address is not valid, or the configured user credentials don't have access permissions to the resource mailbox calendar, the service will fail to register.

This command has multi line output.

The following characters in the meeting subject will not be displayed:

- | (vertical bar)
- CR (carriage return)
- LF (line feed)

See Also

To enable or disable the calendaring service, use the calendarregisterwithserver command on page 4-53 . To configure the Microsoft Exchange server address used by this service use the calendarserver command on page 4-56 .

calendarpassword

Sets the password used by the calendaring service to log in to the Microsoft Exchange server.

Syntax

```
calendarpassword set "password"
```

Parameter	Description
"password"	The password used by the calendaring service to log in to the Microsoft Exchange server.

Feedback Examples

```
calendarpassword Dsca1end@r
```

returns

```
calendarpassword Dsca1end@r
```

Comments

The password can be up to 15 characters long and is case-sensitive. Use strong passwords that combine uppercase and lowercase letters, numbers, and symbols.

See Also

To enable or disable the calendaring service, use the calendarregisterwithserver command on page 4-53 .

calendarplaytone

Enables or disables the reminder alert tone that plays with the meeting reminder when the Polycom HDX system is registered with the calendaring service.

Syntax

```
calendarplaytone get
calendarplaytone <yes|no>
```

Parameter	Description
get	Gets the current setting for the alert tone.
yes	Enables the alert tone.
no	Disables the alert tone.

Feedback Examples

- `calendarplaytone get`
  returns
  `calendarplaytone yes`
- `calendarplaytone yes`
  returns
  `calendarplaytone yes`
- `calendarplaytone no`
  returns
  `calendarplaytone no`

See Also

See calendarremindertime command on page 4-54 .

calendarregisterwithserver

Enables or disables the calendaring service.

Syntax

```
calendarregisterwithserver get
calendarregisterwithserver <yes|no>
```

Parameter	Description
get	Returns the current server registration status.
yes	Enables the calendaring service.
no	Disables the calendaring service.

Feedback Examples

- `calendarregisterwithserver get`
  returns
  `calendarregisterwithserver no`
- `calendarregisterwithserver yes`
  returns
  `calendarregisterwithserver yes`
- `calendarregisterwithserver no`
  returns
  `calendarregisterwithserver no`

Comments

To configure the Microsoft Exchange server address used by the calendaring service use the calendarserver command on page 4-56 .

calendarremindertime

Gets and sets the reminder time for meetings in the calendar when the system is registered with the calendaring service.

Syntax

```
calendarremindertime <get|1|5|10|15|30|none>
```

Parameter	Description
get	Gets the current reminder time.
1|5|10|15|30|none	The number of minutes before a meeting starts that a meeting reminder is given.

Feedback Examples

- `calendarremindertime get`
  returns
  `calendarremindertime 5`
- `calendarremindertime 15`
  returns
  `calendarremindertime 15`
- `calendarremindertime none`
  returns
  `calendarremindertime none`

Comments

By default, the reminder time is set to 5 minutes.

See Also

Use the notify command on page 4-235 to register for meeting reminders.

See also calendarplaytone command on page 4-52 .

calendarresource

Gets and sets the mailbox account being monitored for calendar events. The mailbox account is called a resource.

Syntax

```
calendarresource get
calendarresource "resource"
```

Parameter	Description
get	Returns the resource being monitored for calendar events.
"resource"	The resource to monitor for calendaring events.

Feedback Examples

- `calendarresource get`
  returns
  `calendarresource radam@abcde.com`
- `calendarresource jmcnulty@abcde.com`
  returns
  `calendarresource jmcnulty@abcde.com`

Comments

A resource can be a user mailbox or a resource mailbox. A resource mailbox is a mailbox specifically assigned to a meeting room.

See Also

Use the calendarregisterwithserver command on page 4-53 to enable or disable the calendaring service. See the calendarserver command on page 4-56 to configure the Microsoft Exchange server address used by the calendaring service.

calendarserver

Gets or sets the Microsoft Exchange server used by the calendaring service.

Syntax

```
calendarserver get
calendarserver "server"
```

Parameter	Description
`get`	Gets the current Microsoft Exchange server used by the calendaring service.
`“server”`	The IP address or DNS name of the Microsoft Exchange server to be used by the calendaring service.

Feedback Examples

- `calendarserver get`
  returns
  `calendarserver 192.168.44.168`
- `calendarserver 192.168.23.221`
  returns
  `calendarserver 192.168.23.221`
- `calendarserver get`
  returns
  `calendarserver mail.exchangeserver.local.com`
- `calendarserver mail2.exchserver.local.com`
  returns
  `calendarserver mail2.exchserver.local.com`

See Also

Use the calendarregisterwithserver command on page 4-53 to enable or disable the calendaring service.

calendarshowpvtmeetings

Enables or disables the display of private meetings in the calendar when the system is registered with the calendaring service.

Syntax

```
calendarshowpvtmeetings get
calendarshowpvtmeetings <yes|no>
```

Parameter	Description
get	Gets the current setting for private meeting display.
yes	Enables the display of private meetings.
no	Blocks the display of private meetings.

Feedback Examples

- `calendarshowpvtmeetings get`
  returns
  `calendarshowpvtmeetings no`
- `calendarshowpvtmeetings yes`
  returns
  `calendarshowpvtmeetings yes`
- `calendarshowpvtmeetings no`
  returns
  `calendarshowpvtmeetings no`

calendarstatus

Returns the status of the Microsoft Exchange server connection.

Syntax

```
calendarstatus get
```

Parameter	Description
`get`	Returns the Microsoft Exchange server connection status.

Feedback Examples

- `calendarstatus get`
  returns
  `calendarstatus established`
- `calendarstatus get`
  returns
  `calendarstatus unavailable`

See Also

Use the calendarregisterwithserver command on page 4-53 to enable or disable the calendaring service.

calendaruser

Gets or sets the user name the calendaring service uses to log in to the Microsoft Exchange server.

Syntax

```
calendaruser get
calendaruser "username"
```

Parameter	Description
`get`	Returns the user name being used by the calendaring service.
`username`	The user name the calendaring service uses to log in to the Microsoft Exchange server.

Feedback Examples

- `calendaruser get`
  returns
  `calendaruser jpolycom`

See Also

See the calendarserver command on page 4-56 to configure the Microsoft Exchange server address used by this service.

calldetail

Displays all call detail records, a specific call detail record, or the call detail range.

Syntax

```
calldetail <“Nth_item”|all>
calldetail range
```

Parameter	Description
“Nth_item”	Displays the Nth call detail record.
all	Displays all call detail records.
range	Displays the range of records in the call detail report.

Feedback Examples

- `calldetail 1`
  returns
  `1,02/Nov/2008,16:34:34,02/Nov/2008,16:34:34,0:00:00,---,Polycom HDX Demo,192.168.1.101,---,h323,384Kbps,”Polycom/HDX 9004/ 2.5”,Out,2,1,---,---,---,terminal,192.168.1.101,Siren22,Siren22, H.264,H.264,4SIF,----,"The call has ended.; Local user initiated hangup.",16,---,0.00,0.00,0.00,0.00,0,0,0,0,0,0,0,0`
- `calldetail range`
  returns
  `1..29`

calldetailreport

Sets or gets whether to generate a report of all calls made with the system.

Syntax

```
calldetailreport <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Turns on call detail reporting.
no	Turns off call detail reporting.

Feedback Examples

- `calldetailreport yes`
  returns
  `calldetailreport yes`
- `calldetailreport no`
  returns
  `calldetailreport no`
- `calldetailreport` get
  returns
  `calldetailreport no`

Comments

`calldetail no` disables both the Call Detail Report and Recent Calls features.

callencryption (deprecated)

Sets or gets the call encryption mode. You cannot use this command while a call is in progress.

With the implementation of the encryption command on page 4-123 , this command has been deprecated.

Syntax

```
callencryption <get|whenavailable|disabled>
```

Parameter	Description
get	Returns the current setting.
whenavailable	Use encryption when the far site is capable of encryption.
disabled	Disables call encryption. Note: This parameter is called “Off” in the user interface.

Feedback Examples

- `callencryption disabled`
  returns
  `callencryption disabled`
- `callencryption whenavailable`
  returns
  `callencryption whenavailable`
- `callencryption` get
  returns
  `callencryption whenavailable`

Comments

The Encryption options are only visible on the user interface if an encryption key has been entered.

callinfo

Returns information about the current call. If you are in a multipoint call, this command returns one line for each site in the call.

Syntax

```
callinfo all
callinfo callid "callid"
```

Parameter	Description
all	Returns information about each connection in the call.
callid	Returns information about the connection with the specified call ID.

Feedback Examples

- `callinfo all`
  returns
  ```
  callinfo begin
  callinfo:43:Polycom HDX Demo:192.168.1.101:384:connected:
  notmuted:outgoing:videocall
  callinfo:36:192.168.1.102:256:connected:muted:outgoing:vide
  ocall
  callinfo end
  ```
- `callinfo callid 36`
  returns
  ```
  callinfo:36:192.168.1.102:256:connected:muted:outgoing:vide
  ocall
  ```
- `callinfo all`
  returns
  `system is not in a call`
  when no call is currently connected

Comments

The `callid` information is returned using the following format:

```
callinfo:<callid>:<far site name>:<far site number>:<speed>:
<connection status>:<mute status>:<call direction>:<call type>
```

callstate

Sets or gets the call state notification for call state events.

Syntax

```
callstate <get|register|unregister>
```

Parameter	Description
get	Returns the current setting.
register	Registers the system to give notification of call activities.
unregister	Disables the register mode.

Feedback Examples

- `callstate register`
  returns
  `callstate registered`
- `callstate unregister`
  returns
  `callstate unregistered`
- `callstate get`
  returns
  `callstate unregistered`

After registering, the following callstate (cs:) data is returned when connecting an IP call:

```
cs: call[34] chan[0] dialstr[192.168.1.103] state[ALLOCATED]
cs: call[34] chan[0] dialstr[192.168.1.103] state[RINGING]
cs: call[34] chan[0] dialstr[192.168.1.103] state[BONDING]
cs: call[34] chan[0] dialstr[192.168.1.103] state[BONDING]
cs: call[34] chan[0] dialstr[192.168.1.103] state[COMPLETE]
active: call[34] speed [384]
```

Note: The [BONDING] responses in IP calls are extraneous text that will be removed in a subsequent software version.

After registering, the following response occurs when disconnecting an IP call:

```
cleared: call[34]
dialstr[IP:192.168.1.103 NAME:Polycom HDX Demo]
ended: call[34]
```

See Also

You can also use the notify command on page 4-235 and the nonotify command on page 4-234 for notifications.

For more information about call status messages, refer to Status Messages command on page B-1 .

callstats

Returns call summary information.

Syntax

```
callstats
```

Feedback Examples

- `callstats`
  returns
  ```
  timeinlastcall 0:02:35
  totalnumberofcalls 23
  totalnumberofipcalls 23
  totaltimeipcalls 2:08:44
  percentageipcalls 100%
  totalnumberofisdncalls 0
  totaltimeisdncalls 00:00:00
  percentageisdncalls 0%
  ```

camera

Sets or gets the near-site or far-site camera settings.

Syntax

```
camera near {1..6}
camera far {1..5}
camera <near|far> move <left|right|up|down|zoom+|zoom-|stop>
camera <near|far> move <continuous|discrete>
camera <near|far> source
camera <near|far> stop
camera near <getposition|setposition “x” “y” “z”>
camera near ppcip
camera for-people {2..5}
camera for-content {2..5}
camera list-content
camera <register|unregister>
camera register get
```

Parameter	Description
near	Specifies that the command selects or controls the near camera.
far	Specifies that the command selects or controls the far camera.
{1..6}, {1..5}	Specifies a near or far camera as the main video source. `camera near 6` selects Polycom People+Content™ IP if it is running and connected to the system.
move	Changes the near or far camera's direction or zoom. Only `continuous` and `discrete` return feedback. Valid directions are: left, right, up, down, zoom+, zoom-, stop, continuous, and discrete.
left	Starts moving the camera left.
right	Starts moving the camera right.
up	Starts moving the camera up.
down	Starts moving the camera down.
zoom+	Starts zooming in.
zoom-	Starts zooming out.
stop	Stops the near or far camera when in continuous mode. Returns no feedback.

Parameter	Description
`continuous`	Selects continuous movement mode. The camera will move in direction specified until a `camera <near|far> move stop` command is sent. This is the default setting.
`discrete`	Selects discrete movement mode. The camera will move a small amount in the direction specified and then stop. No stop command is required.
`source`	Returns the number of the near or far camera source currently selected.
`getposition`	Gets the pan, tilt, and zoom coordinates of the currently selected PTZ camera in the format of `pan tilt zoom`.
`setposition “x” “y” “z”`	Sets the pan (x), tilt (y), and zoom (z) coordinates of the currently selected PTZ camera. Camera PTZ range: -880 <= pan <= 880 -300 <= tilt <= 300 0 <= zoom <= 1023 Note: Some D30 cameras might not be able to reach the designed range limit. For example, although the pan limit is 880, the camera might only be able to reach 860.
`ppcip`	Specifies People+Content IP as the main video source if it is running and connected to the system.
`for-people {2..5}`	Sets the source for the specified camera to People.
`for-content {2..5}`	Sets the source for the specified camera to Content.
`list-content`	Gets a list of cameras configured as Content.
`register`	Registers to receive feedback when the user changes the camera source. Returns the current camera registration state when followed by the `get` parameter.
`unregister`	Unregisters to receive feedback when the user changes the camera source.

Feedback Examples

- `camera far 2`
  specifies camera 2 at the far-site and returns
  `camera far 2`
- `camera far move left`
  causes the far-site camera to start panning to the left and returns
  `event: camera far move left`

- `camera near move zoom+`
  causes the near-site camera to zoom in and returns
  `event: camera near move zoom+`
- `camera register`
  returns
  `camera registered`
- `camera unregister`
  returns
  `camera unregistered`

Comments

If the camera near {1..6} API command is used for an input configured as content, the command becomes a toggle. You must send the command once to send the content source and a second time to stop the content source.
The camera near 6 command and the camera near ppcip command provide the same functionality.

cameradirection

Sets or gets the camera pan direction.

Syntax

```
cameradirection <get|normal|reversed>
```

Parameter	Description
get	Returns the current setting.
normal	Sets the direction of the camera to normal; the camera moves in the same direction as the left/right arrows on the remote control.
reversed	Sets the direction of the camera to reversed; the camera moves in the opposite direction of the left/right arrows on the remote control.

Feedback Examples

- `cameradirection normal`
  returns
  `cameradirection normal`
- `cameradirection reversed`
  returns
  `cameradirection reversed`
- `cameradirection get`
  returns
  `cameradirection reversed`

camerainput

Sets or gets the format for a video source.

Syntax

```
camerainput <1|2|3> <get|s-video|composite|component>
camerainput <4|5> <get|dvi|vga>
```

Parameter	Description
<1..5>	Specifies the video source. `camerainput 5` is available only on the Polycom HDX 9004.
get	Returns the current setting.
s-video	Specifies that the video source is connected using S-Video.
composite	Specifies that the video source is connected using a composite connector.
component	Specifies that the video source is connected using a component connector.
dvi	Specifies that the video source is connected using DVI.
vga	Specifies that the video source is connected using VGA.

Feedback Examples

- `camerainput 1 composite`
  returns
  `camerainput 1 component`
- `camerainput 2 s-video`
  returns
  `camerainput 2 s-video`
- `camerainput 2 get`
  returns
  `camerainput 2 s-video`
- camerainput 3 dvi
  returns
  camerainput 3 dvi
- camerainput 4 vga
  returns
  camerainput 4 vga

chaircontrol

Sends various chair control commands while the system is in a multipoint call.

Syntax

```
chaircontrol end_conf
chaircontrol hangup_term “term_no”
chaircontrol list
chaircontrol rel_chair
chaircontrol <register|unregister>
chaircontrol req_chair
chaircontrol req_floor
chaircontrol req_term_name “term_no”
chaircontrol req_vas
chaircontrol set_broadcaster “term_no”
chaircontrol set_term_name “term_no” “term_name”
chaircontrol stop_view
chaircontrol view “term_no”
chaircontrol view_broadcaster
```

Parameter	Description
`end_conf`	Ends the call and returns the same feedback as hangup_term for each site in the call.
`hangup_term “term_no”`	Disconnects the specified site from the call.
`list`	Lists the sites in the call.
`rel_chair`	Releases the chair.
`register`	Registers to receive feedback on all chair control operations.
`unregister`	Unregisters (stops feedback on all chair control operations).
`req_chair`	Requests the chair.
`req_floor`	Requests the floor.
`req_term_name “term_no”`	Requests the name for the specified terminal number.
`req_vas`	Requests voice-activated switching.
`set_broadcaster “term_no”`	Requests the specified terminal to become the broadcaster.
`set_term_name “term_no” “term_name”`	Sets the name for the specified terminal number.

Parameter	Description
stop_view	Stops viewing the specified terminal.
view "term_no"	Views the specified terminal.
view_broadcaster	Views the broadcaster.

Feedback Examples

- chaircontrol rel_chair
  returns
  chaircontrol rel_chair granted
  chaircontrol view 1.1 granted
- chaircontrol req_vas
  returns
  chaircontrol req_vas granted
  chaircontrol view 1.1 granted
- chaircontrol hangup_term 1.4
  returns
  chaircontrol del_term 1.4
  chaircontrol terminal 1.4 left conference
  cleared: call[34]
  dialstring[IP:192.168.1.101 NAME:Polycom HDX Demo]
  ended: call[34]

Comments

Terminal numbers are set by the MCU and are of the form x.y where x is the MCU and y is the participant.

You only need to enclose a parameter in quotes if it contains a space.

cmdecho

Turns command echoing on or off.

Syntax

```
cmdecho <on|off>
```

Parameter	Description
on	Turns on command echoing so that everything you type is echoed on the screen.
off	Turns off command echoing so that nothing you type is echoed on the screen.

Feedback Examples

- `cmdecho on`
  returns
  `cmdecho on`
- `cmdecho off`
  returns
  `cmdecho off`

Comments

This setting defaults to on every time the system powers up. You might want to turn off command echoing when sending batches of commands (in an init script) to simplify the output.

colorbar

Turns the video diagnostics color bars on or off.

Syntax

```
colorbar <on|off>
```

Parameter	Description
on	Turns on the color bar test pattern.
off	Turns off the color bar test pattern.

Feedback Examples

- `colorbar on`
  returns
  `colorbar on`
- `colorbar off`
  returns
  `colorbar off`

configchange (deprecated)

Sets or gets the notification state for configuration changes. This command has been deprecated.

Syntax

```
configchange <get|register|unregister>
```

Parameter	Description
`get`	Returns the current setting.
`register`	Registers to receive notifications when configuration variables have changed.
`unregister`	Unregisters to receive notifications when configuration variables have changed.

Feedback Examples

- `configchange register`
  returns
  `configchange registered`
- `configchange unregister`
  returns
  `configchange unregistered`
- `configchange get`
  returns
  `configchange unregistered`

configdisplay

Sets or gets the video format, aspect ratio and resolution for Monitor 1 or Monitor 2.

Syntax

```
configdisplay [<monitor1|monitor2>] get
configdisplay <monitor1|monitor2>
<component|vga|dvi|composite|s_video> <4:3|16:9>
configdisplay <monitor1|monitor2>
<component|vga|dvi|composite|s_video> <4:3|16:9> [<720p|1080i|1080p>]
[<50hz720p|60hz720p|50hz1080i|60hz1080i|50hz1080p|60hz1080p>]
configdisplay monitor2 off
```

Parameter	Description
get	Returns the current setting.
monitor1	Specifies Monitor 1.
monitor2	Specifies Monitor 2.
s_video	Sets the specified display to S-Video format.
composite	Sets the specified display to Composite format.
vga	Sets the specified display to VGA format.
dvi	Sets the specified display to DVI format.
component	Sets the specified display to Component format.
4:3	Sets the display aspect ratio to 4:3 (standard).
16:9	Sets the display aspect ratio to 16:9 (wide screen).
720p	Sets the resolution to 1280x720p, 50-60 Hz (refresh rate determined by whether unit is PAL or NTSC, respectively). For monitors with Component format and 16:9 aspect ratio only.
1080i	Sets the resolution to 1920x1080i, 50 -60 Hz (refresh rate determined by whether unit is PAL or NTSC, respectively). For monitors with Component format and 16:9 aspect ratio only.
1080p	Sets the resolution to 1920x1080p, 50 -60 Hz (refresh rate determined by whether unit is PAL or NTSC, respectively). For monitors with Component format and 16:9 aspect ratio only.
50hz720p	Sets the resolution to 1280x720p, 50 Hz (PAL systems-only). For monitors with Component format and 16:9 aspect ratio only.

Parameter	Description
60hz720p	Sets the resolution to 1280x720p, 60 Hz (NTSC systems-only). For DVI and VGA formats with a 16:9 aspect ratio only.
50hz1080i	Sets the resolution to 1920x1080i, 50 Hz (DVI-only, PAL systems-only). For DVI and VGA formats with a 16:9 aspect ratio only.
60hz1080i	Sets the resolution to 1920x1080i, 60 Hz (DVI-only, NTSC systems-only). For DVI and VGA formats with a 16:9 aspect ratio only.
50hz1080p	Sets the resolution to 1920x1080p, 50 Hz (PAL systems-only). For DVI and VGA formats with a 16:9 aspect ratio only.
60hz1080p	Sets the resolution to 1920x1080p, 60 Hz (NTSC systems-only). This setting is available for DVI and VGA formats with a 16:9 aspect ratio only.
off	Sets Monitor 2 to off.

Feedback Examples

- `configdisplay get`
  returns
  `configdisplay monitor1 dvi 16:9 monitor2 vga 16:9`
- `configdisplay monitor2 get`
  returns
  `configdisplay monitor2 vga 16:9`
- `configdisplay monitor2 vga 4.3`
  returns
  `configdisplay monitor2 vga 4.3`
- `configdisplay monitor1 dvi 16:9 60hz1080p`
  returns
  `configdisplay monitor1 dvi 16:9 60hz1080p`

configparam

Sets or gets the video quality setting for the specified video input for motion or sharpness.

Syntax

```
configparam <"parameter"> get
configparam <"parameter"> set <"value">
```

Parameter	Possible Values	Description
camera_video_quality <1|2|3|4>	motion|sharpness	Sets or gets the video quality setting for the specified video input for motion or for sharpness (for images without motion).

Feedback Examples

- `configparam camera_video_quality 1 set motion`
  returns
  `camera1_video_quality motion`

configpresentation

Sets or gets the content presentation settings for Monitor 1 or Monitor 2.

Syntax

```
configpresentation get
configpresentation <monitor1|monitor2> get
configpresentation monitor1 <near|far|content|near-or-far|
content-or-near|content-or-far|all|none>
configpresentation monitor2 <near|far|content|near-or-far|
content-or-near|content-or-far|all|none>
configpresentation monitor1 "value" monitor2 "value"
```

Parameter	Description
get	Returns the current settings for the active monitors.
monitor1	Specifies settings for Monitor 1.
monitor2	Specifies settings for Monitor 2.
near	Selects near-site video as the video source to display on the specified monitor.
far	Selects far-site video as the video source to display on the specified monitor.
content	Selects content as the video source to display on the specified monitor.
near-or-far	Selects both near-site and far-site video as video sources to display on the specified monitor.
content-or-near	Selects both near-site video and content as video sources to display on the specified monitor.
content-or-far	Selects both content and far-site video as video sources to display on the specified monitor.
all	Selects content, near-site video, and far-site video as video sources for the specified monitor.
none	Clears all video sources for the specified monitor.
“value”	Sets presentation mode for both monitors.

Feedback Examples

- `configpresentation monitor1 get`
  returns
  `configpresentation monitor1:all`
- `configpresentation monitor2 get`
  returns
  `configpresentation monitor2:near-or-far`
- `configpresentation monitor2 far`
  returns
  `error: configpresentation not applied since monitor2 is off`
  when monitor 2 is off

confirmdiradd

Sets or gets the configuration for prompting users to add directory entries for the far sites when a call disconnects.

Syntax

```
confirmdiradd <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	When a call disconnects, the user is prompted to create a local directory entry for the far site if it is not already in the directory.
no	The user is not prompted to create a local directory entry after a call disconnects.

Feedback Examples

- `confirmdiradd no`
  returns
  `confirmdiradd no`
- `confirmdiradd yes`
  returns
  `confirmdiradd yes`
- `confirmdiradd get`
  returns
  `confirmdiradd yes`

confirmdirdel

Sets or gets the configuration for requiring users to confirm directory deletions.

Syntax

```
confirmdirdel <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	When deleting an entry from the directory (address book), the user is prompted with "Are you sure you want to delete this entry?"
no	When deleting an entry from the directory (address book), the user is not prompted with a message.

Feedback Examples

- `confirmdirdel no`
  returns
  `confirmdirdel no`
- `confirmdirdel yes`
  returns
  `confirmdirdel yes`
- `confirmdirdel get`
  returns
  `confirmdirdel yes`

contentauto

Sets or gets the automatic bandwidth adjustment for people and content in point-to-point H.323 calls. Automatic adjustment maintains equal image quality in the two streams.

Syntax

```
contentauto <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Enables automatic bandwidth adjustment for people and content.
off	Disables automatic bandwidth adjustment for people and content. The system Quality Preference settings is used instead.

Feedback Examples

- `contentauto off`
  returns
  `contentauto off`
- `contentauto on`
  returns
  `contentauto on`
- `contentauto get`
  returns
  `contentauto on`

contentsplash

Enables or disables the splash screen display on content monitors.

Syntax

```
contentsplash <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Turns on the content splash screen.
no	Turns off the content splash screen.

Feedback Examples

- `contentsplash get`
  returns
  `contentsplash yes`
- `contentsplash yes`
  returns
  `contentsplash yes`
- `contentsplash no`
  returns
  `contentsplash no`

Comments

The splash screen displays a Polycom logo on content-only displays when neither the near end nor the far end is sending content, and when the Polycom HDX system is not in sleep mode.

By default, the content splash value is set to yes.

When the content splash value is set to no, black video or no signal is sent to the monitor, depending on the screen saver output configured for the monitor.

The content splash setting is persistent across the power cycle.

See Also

monitor1screensaveroutput command on page 4-220 and monitor2screensaveroutput command on page 4-222 .

country

Gets the country setting for the system.

Syntax

```
country get
```

Parameter	Description
`get`	Returns the current setting.

Feedback Examples

- `country get`
  returns
  `country “united states”`

cts

Sets or gets the CTS serial interface control signal (clear to send) configuration. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
cts <get|normal|inverted|ignore>
```

Parameter	Description
get	Returns the current setting.
normal	Sets the signal to normal (high voltage is logic 1).
inverted	Sets the signal to inverted (low voltage is logic 1).
ignore	Ignores the signal.

Feedback Examples

- `cts normal`
  returns
  `cts normal`
- `cts inverted`
  returns
  `cts inverted`
- `cts get`
  returns
  `cts inverted`

Comments

The default setting for this signal is "`normal`".

daylightsavings

Sets or gets the daylight savings time setting. When you enable this setting, the system clock automatically changes for daylight saving time.

Syntax

```
daylightsavings <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables automatic adjustment for daylight savings time.
no	Disables automatic adjustment for daylight savings time.

Feedback Examples

- `daylightsavings no`
  returns
  `daylightsavings no`
- `daylightsavings yes`
  returns
  `daylightsavings yes`
- `daylightsavings get`
  returns
  `daylightsavings yes`

dcd

Sets the configuration for the DCD serial interface control signal (data carrier detect). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dcd <normal|inverted>
```

Parameter	Description
normal	Sets the signal to normal (high voltage is logic 1).
inverted	Sets the signal to inverted (low voltage is logic 1).

Feedback Examples

- `dcd normal`
  returns
  `dcd normal`
- `dcd inverted`
  returns
  `dcd inverted`

Comments

The default setting for this signal is "`normal`".

dcdfilter

Sets or gets the filter setting of the DCD serial interface control signal (data carrier detect). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dcdfilter <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Enables the DCD filter.
off	Disables the DCD filter.

Feedback Examples

- `dcdfilter on`
  returns
  `dcdfilter on`
- `dcdfilter off`
  returns
  `dcdfilter off`
- `dcdfilter get`
  returns
  `dcdfilter off`

Comments

When this filter is enabled, DCD drops for 60 seconds before changing the call state. The default setting for this signal is "`off`".

defaultgateway

Sets or gets the default gateway.

Syntax

```
defaultgateway get
defaultgateway set "xxx.xxx.xxx.xxx"
```

Parameter	Description
`get`	Returns the default gateway IP address.
`set`	Sets the default gateway when followed by the "`xxx.xxx.xxx.xxx`" parameter.
"`xxx.xxx.xxx.xxx`"	IP address to use as the default gateway.

Feedback Examples

- `defaultgateway set 192.168.1.101`
  returns
  `defaultgateway 192.168.1.101`

Comments

This setting can only be changed if DHCP is turned off. After making a change, you must restart the system for the setting to take effect.

dhcp

Sets or gets DHCP options.

Syntax

```
dhcp <get|off|client>
```

Parameter	Description
`get`	Returns the selected DHCP option.
`off`	Disables DHCP.
`client`	Enables DHCP client, setting the system to obtain an IP address from a server on your network.

Feedback Examples

- `dhcp off`
  returns
  `dhcp off`
- `dhcp client`
  returns
  `dhcp client`
- `dhcp get`
  returns
  `dhcp client`

Comments

After making a change, you must restart the system for the setting to take effect.

dial

Dials video or audio calls either manually or from the directory.

Syntax

```
dial addressbook "addr book name"
dial auto "speed" "dialstr"
dial manual <56|64> "dialstr1" "dialstr2" [h320]
dial manual "speed" "dialstr1" ["dialstr2"] [h323|h320|ip|isdn|sip]
dial phone "dialstring"
```

Parameter	Description
`addressbook`	Dials a directory (address book) entry. Requires the name of the entry.
`"addr book name"`	The name of the directory (address book) entry. The name may be up to 25 characters. Use quotation marks around strings that contain spaces. For example: `"John Doe"`.
`auto`	Dials a video call number dialstr1 at speed of type h323 or h320. Requires the parameters "speed" and "dialstr". Allows the user to automatically dial a number. The system first attempts H.323 and if that fails, rolls over to H.320. Deprecated. Instead of this command, Polycom recommends using `dial manual` and not specifying a call type.
`"speed"`	Valid data rate for the network.
`"dialstr"`, `"dialstr1"`, `"dialstr2"`	Valid ISDN or IP directory number.
`manual`	Dials a video call number dialstr1 at speed of type h323 or h320. Requires the parameters "speed" and "dialstr1". Use `dial manual "speed" "dialstr" "type"` when you do not want automatic call rollover or when the dialstring might not convey the intended transport (for example, an extension with an IP gateway might look like an ISDN number, but in fact corresponds to an IP address).
`56|64`	Specifies speed for two-channel calls.

Parameter	Description
h323|h320|ip|isdn|sip	Type of call. Note: The parameters ip and isdn are deprecated.
phone	Dials an analog phone number.
"dialstring"	Numeric string specifying the phone number to dial. Enclose the string in quotation marks if it includes spaces. Example: "512 555 1212"

Feedback Examples

- dial manual 64 5551212 h320
  returns
  dialing manual
- If registered for callstate notifications (callstate register), the API returns
  cs: call[44] chan[0] dialstr[5551212] state[ALLOCATED]
  cs: call[44] chan[0] dialstr[5551212] state[RINGING]
  cs: call[44] chan[0] dialstr[5551212] state[CONNECTED]
  cs: call[44] chan[0] dialstr[5551212] state[CONNECTED]
  cs: call[44] chan[0] dialstr[5551212] state[COMPLETE]
  cs: call[44] chan[0] dialstr[5551212] state[COMPLETE]
  active: call[44] speed[64]
- dial addressbook "John Polycom"
  returns
  dialing addressbook "John Polycom"
- If registered for callstate notifications (callstate register), the API returns
  cs: call[44] chan[0] dialstr[192.168.1.101] state[ALLOCATED]
  cs: call[44] chan[0] dialstr[192.168.1.101] state[RINGING]
  cs: call[44] chan[0] dialstr[192.168.1.101] state[BONDING]
  cs: call[44] chan[0] dialstr[192.168.1.101] state[BONDING]
  cs: call[44] chan[0] dialstr[192.168.1.101] state[COMPLETE]
  active: call[44] speed[384]

  Notes: The [BONDING] responses in IP calls are extraneous text that will be removed in a subsequent software version.

  Call ID (call [44]) is an example of the response. The Call ID number depends upon the call type.
- If registered for callstatus notifications (notify callstatus), the API returns,
  notification:callstatus:outgoing:45:null
  1::opened::0:videocall
  notification:callstatus:outgoing:45: Polycom Austin:
  192.168.1.101:connecting:384:0:videocall

```
notification:callstatus:outgoing:45: Polycom Austin:
192.168.1.101:connected:384:0:videocall

Note: The call ID number (45) is an example of the response.
The Call ID number depends upon the call type.
```

Comments

When searching for feedback from the dial command, expect to see the set of described strings as many times as there are channels in the call.

When initiating a multipoint call or adding multiple sites to a multipoint call over ISDN, you must be sure that the total call rate does not exceed the bandwidth of the ISDN interface. Otherwise, one of the calls may not connect.

For example, the total ISDN bandwidth for a T1 line is 1544 kbit/s. Thus, making the following five calls in succession violates the ISDN bandwidth rule, because the total ISDN bandwidth would require 1920 kbit/s (1920 = 384 * 5), and one of the calls may not connect:

- dial manual 384 5551212
  dial manual 384 5561212
  dial manual 384 5571212
  dial manual 384 5581212
  dial manual 384 5591212

Similarly, making the following two calls in a multipoint call where sites 1, 2, and 3 are already connected at 256 kbits/s each violates the ISDN bandwidth rule. This is because the total ISDN bandwidth required becomes 1792 kbits/s (1792 = 256 * 3 + 512 * 2), and one of these two new calls may not connect:

- dial manual 512 5581212
  dial manual 512 5591212

Note: The ISDN bandwidth rule is not applicable to IP calls and only applies when multiple ISDN dial commands are issued in succession without waiting for the active call notification (i.e., active: call[36] speed[128]) between dial commands. Adding single calls to a multipoint call and then waiting for the active call notification does not break the rule, because the system downspeeds calls to meet the required ISDN bandwidth limitations.

See Also

Refer to the callstate command on page 4-64 . You can use callstate register to obtain updated information on the status of a call. For example, when using the dial manual to place a call, callstate register can tell you when the call is connected.

dialchannels

Sets or gets whether to dial ISDN channels in parallel. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
dialchannels get
dialchannels set n
```

Parameter	Description
get	Returns the current setting.
set	Sets the number of channels to dial.
n	Sets the number of channels to dial. n is 8 for QBRI, 12 for PRI.

Feedback Examples

- `dialchannels set 8`
  returns
  `dialchannels 8`
- `dialchannels get`
  returns
  `dialchannels 8`

dialingdisplay

Sets or gets the Place a Call screen dialing display.

Syntax

```
dialingdisplay <displaymarquee|none>
```

Parameter	Description
displaymarquee	Displays text in the dialing entry field. Users cannot enter numbers manually when this option is selected. The text displayed is specified by the marqueedisplaytext command.
none	Removes the dialing entry field from the display.

Feedback Examples

- `dialingdisplay none`
  returns
  `dialingdisplay none`
- `dialingdisplay displaymarquee`
  returns
  `dialingdisplay displaymarquee`

See Also

The text displayed is specified by the marqueedisplaytext command on page 4-212 .

diffservaudio, diffservfecc, diffservvideo

Sets or gets the DiffServ option and specifies a priority level for audio, far-end camera control (FECC) and other call control channels, and video, respectively. The priority level value for each can be between 0 and 63.

Syntax

```
diffservaudio get
diffservaudio set {0..63}
diffservfecc get
diffservfecc set {0..63}
diffservvideo get
diffservvideo set {0..63}
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the command. A priority level in the range `{0..63}` is required.
`{0..63}`	Specifies the priority level.

Feedback Examples

- `diffservaudio set 2`
  returns
  `diffservaudio 2`
- `diffservaudio get`
  returns
  `diffservaudio 2`

Comments

The diffservfecc command is equivalent to the Control setting in the user interface.

If the typeofservice command on page 4-311 is set to `ip-precedence rather than to diffserv`, these commands are not applicable.

directory

Sets or gets whether the **Directory** button appears on the Home screen.

Syntax

```
directory <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the **Directory** button on the Home screen.
no	Removes the **Directory** button from the Home screen.

Feedback Examples

- `directory yes`
  returns
  `directory yes`
- `directory no`
  returns
  `directory no`
- `directory get`
  returns
  `directory no`

display (deprecated)

Displays information about the current call or the system. With the implementation of the callinfo command on page 4-63 and whoami command on page 4-346 , this command has been deprecated.

Syntax

```
display call
display whoami
```

Parameter	Description
call	Displays the following information about the current call: call ID, status, speed, the number to which this system is connected.
whoami	Returns information about the current system.

Feedback Examples

- display call
  returns
  ```
  Call ID Status SpeedDialed Num
  ---------------------------------------
  34CM_CALLINFO_CONNECTED 384192.168.1.101
  ```
- display whoami
  returns
  ```
  Hi, my name is: Polycom HDX Demo
  Here is what I know about myself:
  Model: HDX9004
  Serial Number: 82065205E72EC1
  Software Version: Release 2.5 - 30Nov2008 11:30
  Build Information: root on domain.polycom.com
  FPGA Revision: 4.3.0
  Main Processor: BSP15
  Time In Last Call: 0:43:50
  Total Time In Calls: 87:17:17
  Total Calls: 819
  SNTP Time Service: auto insync ntp1.polycom.com
  Local Time is: Wed, 30 Nov 2008
  Network Interface: NONE
  IP Video Number: 192.168.1.101
  ISDN Video Number: 7005551212
  MP Enabled: True
  H.323 Enabled: True
  ```

```
FTP Enabled: True
HTTP Enabled: True
SNMP Enabled: True
```

displayglobaladdresses

Sets or gets the display of global addresses in the global directory.

Syntax

```
displayglobaladdresses <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the display of global addresses.
no	Disables the display of global addresses.

Feedback Examples

- `displayglobaladdresses` yes
  returns
  `displayglobaladdresses` yes
- `displayglobaladdresses` no
  returns
  `displayglobaladdresses` no
- `displayglobaladdresses` get
  returns
  `displayglobaladdresses` no

displaygraphics

Sets or gets the display of graphic icons while in a call.

Syntax

```
displaygraphics <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the display of graphic icons.
no	Disables the display of graphic icons.

Feedback Examples

- `displaygraphics` yes
  returns
  `displaygraphics` yes
- `displaygraphics` no
  returns
  `displaygraphics` no
- `displaygraphics` get
  returns
  `displaygraphics` no

displayipext

Sets or gets the display of the IP extension field. This extension is needed when placing a call through a gateway.

Syntax

```
displayipext <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the display of the IP extension.
no	Enables the display of the IP extension.

Feedback Examples

- `displayipext yes`
  returns
  `displayipext yes`
- `displayipext no`
  returns
  `displayipext no`
- `displayipext get`
  returns
  `displayipext no`

Comments

When this option is selected, the extension field is visible on the Home screen.

displayipisdninfo (deprecated)

Sets or gets the display of IP and ISDN information on the Home screen. This command has been deprecated. Polycom recommends using the ipisdninfo command on page 4-186 .

Syntax

`displayipisdninfo <yes|no|both|ip-only|isdn-only|none|get>`

Parameter	Description
`yes`	Enables the display of both IP and ISDN information. Provides feedback `both`.
`no`	Disables the display of IP and ISDN information. Provides feedback `none`.
`both`	Enables the display of both IP and ISDN information.
`ip-only`	Disables the display of IP information.
`isdn-only`	Enables the display of ISDN information.
`none`	Disables the display of IP and ISDN information.
`get`	Returns the current setting.

Feedback Examples

- `displayipisdninfo` yes
  returns
  `displayipisdninfo` both
- `displayipisdninfo` no
  returns
  `displayipisdninfo` none
- `displayipisdninfo` ip-only
  returns
  `displayipisdninfo` ip-only
- `displayipisdninfo` get
  returns
  `displayipisdninfo` ip-only

displayparams

Outputs a list of system settings.

Syntax

```
displayparams
```

Feedback Examples

- `displayparams`
  returns

```
systemname Polycom HDX Demo
hostname <empty>
ipaddress 192.168.1.101
version “2.5”
serialnum 82065205E72EC1
displaygraphics no
vgaresolution 60hz1280x720
vgaphase 32
numberofmonitors 2
monitor1 16:9
monitor2 16:9
vgahorizpos 128
vgavertpos 128
cameradirection normal
farcontrolnearcamera yes
primarycamera 1
backlightcompensation no
telecountrycode <empty>
teleareacode <empty>
telenumber <empty>
roomphonenumber <empty>
echocancellerred no
echocancellerwhite no
muteautoanswer yes
vcraudioout no
vcrrecordsource content-or-auto
redlineinput vcr
whitelineinput vcr
redlinelevel 5
whitelinelevel 5
lineoutputs monitor
lineoutputslevel 5
mpmode auto
sleeptime 1
sleeptext <empty>
rs232 mode camera_ptz
```

```
rs232 baud 9600
rs232port1 mode camera_ptz
rs232port1 baud 9600
```

dns

Sets or gets the configuration for up to four DNS servers.

Syntax

```
dns get {1..4}
dns set {1..4} “xxx.xxx.xxx.xxx”
```

Parameter	Description
get	Returns the current IP address of the specified server. A server identification number {1..4} is required.
{1..4}	Specifies the server identification number.
set	Sets the IP address of the specified DNS server when followed by the “xxx.xxx.xxx.xxx” parameter. A server identification number {1..4} is required.
“xxx.xxx.xxx.xxx”	Specifies the IP address for the specified server.

Feedback Examples

- `dns set 1 192.168.1.205`
  returns
  `dns 1 192.168.1.205`

Comments

After making a change, you must restart the system for the setting to take effect. These values cannot be set if the system is in DHCP client mode.

dsr

Sets or gets the configuration of the DSR serial interface control signal (data set ready). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dsr <get|normal|inverted>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (high voltage is logic 1).
`inverted`	Sets the signal to inverted (low voltage is logic 1).

Feedback Examples

- `dsr normal`
  returns
  `dsr normal`
- `dsr inverted`
  returns
  `dsr inverted`
- `dsr` get
  returns
  `dsr inverted`

Comments

The default setting for this signal is "`normal`".

dsranswer

Sets or gets the configuration of the DSR serial interface control signal to indicate an incoming call. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dsranswer <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Turns on the option.
off	Turns off the option.

Feedback Examples

- `dsranswer on`
  returns
  `dsranswer on`
- `dsranswer off`
  returns
  `dsranswer off`
- `dsranswer` get
  returns
  `dsranswer off`

dtr

Sets or gets the configuration of the DTR serial interface control signal (data terminal ready). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dtr <get|normal|inverted|on>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (high voltage is logic 1).
`inverted`	Sets the signal to inverted (low voltage is logic 1).
`on`	Sets constant high voltage. If this option is selected, `inverted` is not an option.

Feedback Examples

- `dtr normal`
  returns
  `dtr normal`
- `dtr inverted`
  returns
  `dtr inverted`
- `dtr on`
  returns
  `dtr on`
- `dtr get`
  returns
  `dtr on`

Comments

The default setting for the signal is "`normal`".

dualmonitor

Sets or gets whether video is displayed using dual monitor emulation, or split-screen mode, when using one monitor.

Syntax

```
dualmonitor <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables dual monitor emulation.
no	Disables dual monitor emulation.

Feedback Examples

- `dualmonitor yes`
  returns
  `dualmonitor yes`
- `dualmonitor no`
  returns
  `dualmonitor no`
- `dualmonitor get`
  returns
  `dualmonitor no`

dynamicbandwidth

Sets or gets the use of dynamic bandwidth allocation for Quality of Service.

Syntax

```
dynamicbandwidth <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the dynamic bandwidth option.
no	Disables the dynamic bandwidth option.

Feedback Examples

- `dynamicbandwidth yes`
  returns
  `dynamicbandwidth yes`
- `dynamicbandwidth no`
  returns
  `dynamicbandwidth no`
- `dynamicbandwidth get`
  returns
  `dynamicbandwidth no`

Comments

The system's dynamic bandwidth function automatically finds the optimum line speed for a call. If you experience excessive packet loss while in a call, the dynamic bandwidth function decrements the line speed until there is no packet loss. This is supported in calls with end points that also support dynamic bandwidth.

e164ext

Sets or gets an H.323 (IP) extension, also known as an E.164 name.

Syntax

```
e164ext get
e164ext set “e.164name”
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the E.164 extension when followed by the “`e.164name`” parameter. To erase the current setting, omit “`e.164name`”.
“`e.164name`”	A valid E.164 extension (usually a four-digit number).

Feedback Examples

- `e164ext set`
  returns
  `e164ext <empty>`
- `e164ext set 7878`
  returns
  `e164ext 7878`
- `e164ext get 7878`
  returns
  `e164ext 7878`

Comments

The extension number is associated with a specific LAN device.

echo

Prints "`string`" back to the API client screen.

Syntax

```
echo "string"
```

Parameter	Description
"`string`"	Text to be printed to the screen.

Feedback Examples

- `echo End of abk range results`
  returns
  `End of abk range results`

Comments

Certain API commands print multiple lines without any delimiter string to notify end of command response. This forces a control panel program to guess when the command's response string is going to end. In those scenarios, control panel can issue the legacy command followed by echo command with a delimiter string of their choosing. Once legacy command's response ends, echo command gets processed which will result in the delimiter string printed to the API client.

echocanceller

Sets or gets the configuration of echo cancellation, which prevents users from hearing their voices loop back from the far site.

Syntax

```
echocanceller <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the echo canceller option.
no	Disables the echo canceller option.

Feedback Examples

- `echocanceller yes`
  returns
  `echocancellerred yes`
  `echocancellerwhite yes`
- `echocanceller no`
  returns
  `echocancellerred no`
  `echocancellerwhite no`
- `echocanceller get`
  returns
  `echocancellerred no`
  `echocancellerwhite no`

Comments

This option is enabled by default. Polycom strongly recommends that you do not turn off echo cancellation except when using an external microphone system with its own built-in echo cancellation.

enablefirewalltraversal

Sets or gets the **Enable H.460 Firewall Traversal** setting. This feature requires an Edgewater session border controller that supports H.460.

Syntax

```
enablefirewalltraversal <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Enables the firewall traversal feature.
off	Disables the firewall traversal feature.

Feedback Examples

- `enablefirewalltraversal on`
  returns
  `enablefirewalltraversal on`
- `enablefirewalltraversal off`
  returns
  `enablefirewalltraversal off`
- `enablefirewalltraversal get`
  returns
  `enablefirewalltraversal off`

enablekeyboardnoisereduction

Sets or gets the **Enable Keyboard Noise Reduction** setting.

Syntax

```
enablekeyboardnoisereduction <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables keyboard noise reduction.
no	Disables keyboard noise reduction.

Feedback Examples

- `enablekeyboardnoisereduction yes`
  returns
  `enablekeyboardnoisereduction yes`
- `enablekeyboardnoisereduction no`
  returns
  `enablekeyboardnoisereduction no`
- `enablekeyboardnoisereduction get`
  returns
  `enablekeyboardnoisereduction no`

enablelivemusicmode

Sets or gets the **Enable Live Music Mode** setting.

Syntax

```
enablelivemusicmode <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables live music mode.
no	Disables live music mode.

Feedback Examples

- `enablelivemusicmode yes`
  returns
  `enablelivemusicmode yes`
- `enablelivemusicmode no`
  returns
  `enablelivemusicmode no`
- `enablelivemusicmode get`
  returns
  `enablelivemusicmode no`

enablepvec

Sets or gets the PVEC (Polycom Video Error Concealment) setting on the system.

Syntax

```
enablepvec <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the PVEC option.
no	Disables the PVEC option.

Feedback Examples

- `enablepvec yes`
  returns
  `enablepvec yes`
- `enablepvec no`
  returns
  `enablepvec no`
- `enablepvec get`
  returns
  `enablepvec no`

Comments

This option is enabled by default.

enablersvp

Sets or gets the RSVP (Resource Reservation Setup Protocol) setting on the system, which requests that routers reserve bandwidth along an IP connection path.

Syntax

```
enablersvp <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the RSVP option.
no	Disables the RSVP option.

Feedback Examples

- `enablersvp yes`
  returns
  `enablersvp yes`
- `enablersvp no`
  returns
  `enablersvp no`
- `enablersvp get`
  returns
  `enablersvp no`

Comments

This option is enabled by default.

enablesnmp

Sets or gets the SNMP configuration.

Syntax

```
enablesnmp <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the SNMP option.
no	Disables the SNMP option.

Feedback Examples

- `enablesnmp yes`
  returns
  `enablesnmp yes`
- `enablesnmp no`
  returns
  `enablesnmp no`
- `enablesnmp get`
  returns
  `enablesnmp no`

Comments

After making a change, you must restart the system for the setting to take effect.

encryption

Sets or gets the AES encryption mode for the system.

Syntax

```
encryption <get|yes|no|requiredvideocallsonly|requiredallcalls>
```

Parameter	Description
get	Returns the current setting.
yes	Use encryption when the far site is capable of encryption. Note: This parameter is called "When Available" in the user interface.
no	Disables encryption. Note: This parameter is called "Off" in the user interface.
requiredvideocallsonly	Enforces encryption on all video endpoints. Any video calls to or from systems that do not have encryption enabled are not connected. Audio-only calls are connected.
requiredallcalls	Enforces encryption on all endpoints. Any video or audio calls to or from systems that do not have encryption enabled are rejected and are not connected.

Feedback Examples

- `encryption yes`
  returns
  `encryption yes`
- `encryption no`
  returns
  `encryption no`
- `encryption get`
  returns
  `encryption no`
- `encryption requiredvideocallsonly`
  returns
  `encryption requiredvideocallsonly`
- `encryption requiredallcalls`
  returns
  `encryption requiredallcalls`

Comments

You cannot use this command while a call is in progress. Using this command while the system is in a call returns an “error: command has illegal parameters” message.

exit

Ends the API command session.

Syntax

```
exit
```

Feedback Examples

- `exit`
  returns
  `Connection to host lost.`

Comments

This command ends a Telnet session. For serial sessions, this command effectively starts a new session.

exportdirectory

Exports a directory in XML format.

Syntax

```
exportdirectory
```

Feedback Example

```
exportdirectory
```

returns

```
exportdirectory started
<?xml version="1.0" encoding="UTF-8" ?>
<addresses>
<entrytype type="entry"  name="Polycom Austin USA IP"
filename="Polycom_Austin_USA_IP.abk"
uniqueid="Polycom_Austin_USA_IP.abk">
<address filename="Polycom_Austin_USA_IP.abk" langid=""
displayname="" name="Polycom Austin USA IP">
<h323 address="lobby.austin.polycom.com" speed="256"/>
</address>
</entrytype>
<entrytype type="entry"  name="Polycom Hong Kong"
filename="Polycom_Hong_Kong.abk"
uniqueid="Polycom_Hong_Kong.abk">
<address filename="Polycom_Hong_Kong.abk" langid=""
displayname="" name="Polycom Hong Kong">
<isdn country_code="852" area_code="2876" numberA="9466"
numberB="9466" speed="2x64"/>
</address>
</addresses>
</xml>
exportdirectory done
```

Comments

When importing directory data back into the system, use the data in its entirety (not edited in any form). There is information that is used by the system to determine what type (XML or CSV) of data is being imported.

`exportdirectory done` as the last line of returned data indicates that all directory data has been exported.

Do not use `exportdirectory` to interpret the data that is returned. Simply store and use the data as input to the `importdirectory` command or import directory utility in the web interface. The format of the exported directory data might change in future software releases and any application attempting to interpret the data could find its ability to do so compromised in later releases of Polycom HDX software.

Additional Usage Notes:

- Polycom HDX systems running software version 2.6 or later can import directory data exported from systems running 2.6 and earlier versions.
- Polycom HDX systems running software versions earlier than 2.6 cannot import directory data exported by systems running software version 2.6 or later.

See Also

importdirectory command on page 4-180 .

farcontrolnearcamera

Sets or gets far control of the near camera, which allows far sites to control the camera on your system.

Syntax

```
farcontrolnearcamera <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Allows the far site to control the near camera if the far site has this capability.
no	Disables far control of the near camera.

Feedback Examples

- `farcontrolnearcamera` yes
  returns
  `farcontrolnearcamera` yes
- `farcontrolnearcamera` no
  returns
  `farcontrolnearcamera` no
- `farcontrolnearcamera` get
  returns
  `farcontrolnearcamera` no

farnametimedisplay

Sets or gets the length of time the far-site name is displayed on the system.

Syntax

```
farnametimedisplay off
farnametimedisplay <get|on|15|30|60|120>
```

Parameter	Description
off	Disables the far site name display.
get	Returns the current setting.
on	Displays the far site name for the duration of the call.
15|30|60|120	Specifies the number of seconds to display the far site name at the beginning of a call.

Feedback Examples

- `farnametimedisplay` off
  returns
  `farnametimedisplay` off
- `farnametimedisplay` on
  returns
  `farnametimedisplay` on
- `farnametimedisplay` 60
  returns
  `farnametimedisplay` 60
- `farnametimedisplay` get
  returns
  `farnametimedisplay` 60

flash

Flashes the analog phone call.

Syntax

```
flash [“callid”]
flash [“callid”] [“duration”]
```

Parameter	Description
callid	Specifies the callid to flash.
duration	Specifies the pulse duration in ms.

Feedback Examples

- `flash 34 5`
  returns
  `flash 34 5`
  and flashes callid 34 for 5 ms

See Also

You can also use the phone command on page 4-247 to flash an analog phone line.

gabk (deprecated)

Returns global directory (address book) entries. This command has been deprecated. Polycom recommends using the gaddrbook command on page 4-136 command on page gaddrbook command on page 4-136 .

Syntax

```
gabk all
gabk batch {0..59}
gabk batch define “start_no” “stop_no”
gabk batch search “pattern” “count”
gabk letter {a..z}
gabk range “start_no” “stop_no”
gabk refresh
```

Parameter	Description
all	Returns all entries in the global directory.
batch	Returns a batch of 20 global directory entries. Requires a batch number, which must be an integer in the range {0..59}.
define	Returns a batch of entries in the range defined by “start_no” to “stop_no.” Polycom recommends using gabk range instead of this command.
“start_no”	Specifies the beginning of the range of entries to return.
“stop_no”	Specifies the end of the range of entries to return.
search	Specifies a batch search.
“pattern”	Specifies pattern to match for the batch search.
“count”	Specifies the number of entries to list that match the pattern.
letter	Returns entries beginning with the letter specified from the range {a..z}. Requires one or two alphanumeric characters. Valid characters are: - _ / ; @ , . \ 0 through 9, a through z
range	Returns global directory entries from “start_no” through “stop_no”. Requires two integers.
refresh	Gets a more current copy of the global directory.

Feedback Example

- gabk all
  returns
  “Polycom HDX Demo 1” isdnspd:384 isdnnum:1.700.5551212
  isdnext:
  “Polycom HDX Demo 2” isdnspd:2x64 isdnnum:1.700.5552323
  isdnext:
  “Polycom HDX Demo 3” ipspd:384 ipnum:192.168.1.101 ipext:7878
  “Polycom HDX Demo 4” isdnspd:384 isdnnum:1.700.5553434
  isdnext:
  (and so on, until all entries in the local directory are listed, then:)
  gabk all done
- gabk batch 0
  returns
  “Polycom HDX Demo 1” isdnspd:384 isdnnum:1.700.5551212
  isdnext:
  “Polycom HDX Demo 2” isdnspd:2x64 isdnnum:1.700.5552323
  isdnext:
  “Polycom HDX Demo 3” ipspd:384 ipnum:192.168.1.101 ipext:7878
  “Polycom HDX Demo 4” isdnspd:384 isdnnum:1.700.5553434
  isdnext:
  (and so on, through the last entry in the batch of 20 directory entries, such as:)
  “Polycom HDX Demo 20” ipspd:128 ipnum:192.168.1.102 ipext:7787878
  gabk batch 0 done
- gabk batch define 1 2
  returns
  “Polycom HDX Demo 1” isdnspd:384 isdnnum:1.700.5551212
  isdnext:
  “Polycom HDX Demo 2” isdnspd:2x64 isdnnum:1.700.5552323
  isdnext:
  gabk batch define 1 2 done
- gabk batch search Polycom 2
  returns
  “Polycom HDX Demo 1” isdnspd:384 isdnnum:1.700.5551212
  isdnext:
  “Polycom HDX Demo 2” isdnspd:2x64 isdnnum:1.700.5552323
  isdnext:
  gabk batch search Polycom 2 done
- gabk letter p
  returns
  “Polycom HDX Demo 1” isdnspd:384 isdnnum:1.700.5551212
  isdnext:
  “Polycom HDX Demo 2” isdnspd:2x64 isdnnum:1.700.5552323
  isdnext:

```
"Polycom HDX Demo 3" ipspd:384 ipnum:192.168.1.101 ipext:7878
"Polycom HDX Demo 4" isdnspd:384 isdnnum:1.700.5553434
isdnext:
(and so on, to include all entries in the batch that begin
with p, then:)
gabk letter p done
```

- `gabk range 1 2`
  returns
  ```
  "Polycom HDX Demo 1" isdnspd:384 isdnnum:1.700.5551212
  isdnext:
  "Polycom HDX Demo 2" isdnspd:2x64 isdnnum:1.700.5552323
  isdnext:
  gabk range 1 2 done
  ```

Comments

When the system is registered with the LDAP directory server, all `gabk` commands return the response, command not supported.

`gabk` entries are entries stored in the global directory. In the user interface, the address book and global address book features are referred to as the *global directory*.

See Also

To return local directory entries, use the abk (deprecated) command on page 4-9 .

gabpassword

Sets the password to gain access to the Global Directory Server.

Syntax

```
gabpassword [{1..5}] set [“password”]
```

Parameter	Description
{1..5}	References GDS server {1..5}.
all	Returns all current entries.
set	Sets the GDS password to “password”. To erase the current setting, omit “password”.
“password”	Password to access the GDS server. Valid characters are: a through z (lower and uppercase), -, _, @, /, ;, ,, ., \, 0 through 9. Enclose the string in quotation marks if it includes spaces.

Feedback Examples

- `gabpassword set gabpass`
  returns
  `gabpassword gabpass`
- `gabpassword 1 set gabpass`
  returns
  `gabpassword 1 gabpass`



This command might not return the current password in correct case-sensitive format.

Comments

This command cannot be used unless the Remote Access password in the user interface has been set.

gabserverip

Sets or gets the IP address of the Global Directory Server.

Syntax

```
gabserverip <get|set>
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the GDS server's IP address when followed by the parameter "`xxx.xxx.xxx.xxx`". To erase the current setting, omit the "`xxx.xxx.xxx.xxx`" parameter.

Feedback Examples

- `gabserverip set`
  returns
  `gabserverip <empty>`
- `gabserverip set gab.polycom.com`
  returns
  `gabserverip gab.polycom.com`
- `gabserverip get`
  returns
  `gabserverip gab.polycom.com`

gaddrbook

Returns global directory (address book) entries.

Syntax

```
gaddrbook all
gaddrbook batch {0..59}
gaddrbook batch define “start_no” “stop_no”
gaddrbook batch search “pattern” “count”
gaddrbook letter {a..z}
gaddrbook range “start_no” “stop_no”
gaddrbook refresh
```

Parameter	Description
all	Returns all the entries in the global directory.
batch	Returns a batch of 20 global directory entries. Requires a batch number, which must be an integer in the range {0..59}.
define	Returns a batch of entries in the range defined by “start_no” to “stop_no.”
search	Specifies a batch search.
“pattern”	Specifies a pattern to match for the batch search.
“count”	Specifies the number of entries to list that match the pattern.
letter	Returns entries beginning with the letter specified from the range {a..z}. Requires one or two alphanumeric characters. Valid characters are: - _ / ; @ , . \ 0 through 9 a through z
range	Returns global directory entries numbered “start_no” through “stop_no”. Requires two integers.
“start_no”	Specifies the beginning of the range of entries to return.
“stop_no”	Specifies the end of the range of entries to return.
refresh	Gets a more current copy of the global directory.

Feedback Examples

- `gaddrbook all`
  returns
  `gaddrbook 0. “Polycom HDX Demo 1” isdn_spd:384`

```
isdn_num:1.700.5551212 isdn_ext:
gaddrbook 1. “Polycom HDX Demo 2” h323_spd:384
h323_num:192.168.1.101 h323_ext:7878
gaddrbook 2. “Polycom HDX Demo 3” sip_spd:384
sip_num:polycomhdx@polycom.com
gaddrbook 3. “Polycom HDX Demo 3” phone_num:1.512.5121212
(and so on, until all entries in the global directory are
listed, then:)
gaddrbook all done
```

- `gaddrbook batch 0`
  returns
  ```
  gaddrbook 0. “Polycom HDX Demo 1” isdn_spd:384
  isdn_num:1.700.5551212 isdn_ext:
  gaddrbook 1. “Polycom HDX Demo 2” h323_spd:384
  h323_num:192.168.1.101 h323_ext:7878
  gaddrbook 2. “Polycom HDX Demo 3” sip_spd:384
  sip_num:polycomhdx@polycom.com
  gaddrbook 3. “Polycom HDX Demo 3” phone_num:1.512.5121212
  (and so on, through the last entry in the batch of 20
  directory entries, such as:)
  gaddrbook 19. “Polycom HDX Demo 20” h323_spd:384
  h323_num:192.168.1.120 h323_ext:
  gaddrbook batch 0 done
  ```

- `gaddrbook batch define 0 2`
  returns
  ```
  gaddrbook 0. “Polycom HDX Demo 1” isdn_spd:384
  isdn_num:1.700.5551212 isdn_ext:
  gaddrbook 1. “Polycom HDX Demo 2” h323_spd:384
  h323_num:192.168.1.101 h323_ext:7878
  gaddrbook 2. “Polycom HDX Demo 3” sip_spd:384
  sip_num:polycomhdx@polycom.com
  gaddrbook batch define 0 2 done
  ```

- `gaddrbook batch search Polycom 3`
  returns
  ```
  gaddrbook 0. “Polycom HDX Demo 1” isdn_spd:384
  isdn_num:1.700.5551212 isdn_ext:
  gaddrbook 1. “Polycom HDX Demo 2” h323_spd:384
  h323_num:192.168.1.101 h323_ext:7878
  gaddrbook 2. “Polycom HDX Demo 3” sip_spd:384
  sip_num:polycomhdx@polycom.com
  gaddrbook batch search Polycom 3 done
  ```

- `gaddrbook letter p`
  returns
  ```
  gaddrbook 0. “Polycom HDX Demo 1” isdn_spd:384
  isdn_num:1.700.5551212 isdn_ext:
  gaddrbook 1. “Polycom HDX Demo 2” h323_spd:384
  h323_num:192.168.1.101 h323_ext:7878
  gaddrbook 2. “Polycom HDX Demo 3” sip_spd:384
  ```

```
sip_num:polycomhdx@polycom.com
gaddrbook 3. “Polycom HDX Demo 3” phone_num:1.512.5121212
gaddrbook 19. “Polycom HDX Demo 20” h323_spd:384
h323_num:192.168.1.120 h323_ext:
gaddrbook letter p done
```

- `gaddrbook range 0 2`
  returns
  ```
  gaddrbook 0. “Polycom HDX Demo 1” isdn_spd:384
  isdn_num:1.700.5551212 isdn_ext:
  gaddrbook 1. “Polycom HDX Demo 2” h323_spd:384
  h323_num:192.168.1.101 h323_ext:7878
  gaddrbook 2. “Polycom HDX Demo 3” sip_spd:384
  sip_num:polycomhdx@polycom.com
  gaddrbook range 0 2 done
  ```

Comments

Entries with multiple addresses (for example, an H.323 address and an ISDN number) return each address type on separate lines with an incremented record number.

When the system is registered with the LDAP directory server, only the gaddrbook batch search “pattern” “count” is supported. All other `gaddrbook` commands return the response, command not supported.

When the system is registered with the Polycom GDS directory server, all of the gaddrbook commands and parameters are supported.

`gaddrbook` entries are stored in the global directory (address book).

See Also

To return local directory entries, use the on page addrbook command on page 4-12 .

gatekeeperip

Sets or gets the IP address of the gatekeeper.

Syntax

```
gatekeeperip get
gatekeeperip set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gatekeeper IP address when followed by the "`xxx.xxx.xxx.xxx`" parameter. To erase the current setting, omit "`xxx.xxx.xxx.xxx`".
"`xxx.xxx.xxx.xxx`"	IP address of the gatekeeper.

Feedback Examples

- `gatekeeperip set 192.168.1.205`
  returns
  `gatekeeperip 192.168.1.205`
- `gatekeeperip get`
  returns
  `gatekeeperip 192.168.1.205`

  Note: The gatekeeperip get command feedback may include the port number after the IP address.

gatewayareacode

Sets or gets the gateway area code.

Syntax

```
gatewayareacode get
gatewayareacode set [“areacode”]
```

Parameter	Description
`get`	Returns the area code for the gateway.
`set`	Sets the area code when followed by the “`areacode`” parameter. To erase the current setting, omit “`areacode`”.
“`areacode`”	Numeric string specifying the area code.

Feedback Examples

- `gatewayareacode get`
  returns
  `gatewayareacode <empty>`
- `gatewayareacode set 512`
  returns
  `gatewayareacode 512`
- `gatewayareacode get`
  returns
  `gatewayareacode 512`

gatewaycountrycode

Sets or gets the gateway country code.

Syntax

```
gatewaycountrycode get
gatewaycountrycode set ["countrycode"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gateway country code when followed by the "`countrycode`" parameter. To erase the current setting, omit "`countrycode`".
"`countrycode`"	Numeric string specifying the gateway country code.

Feedback Examples

- `gatewaycountrycode set 1`
  returns
  `gatewaycountrycode 1`
- `gatewaycountrycode get`
  returns
  `gatewaycountrycode 1`

gatewayext

Sets or gets the gateway extension number.

Syntax

```
gatewayext get
gatewayext set ["extension"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gateway extension number when followed by the "`extension`" parameter. To reset the default value, omit "`extension`".
"`extension`"	Numeric string specifying the gateway extension.

Feedback Examples

- `gatewayext set 59715`
  returns
  `gatewayext 59715`
- `gatewayext get`
  returns
  `gatewayext 59715`

gatewaynumber

Sets or gets the gateway number.

Syntax

```
gatewaynumber get
gatewaynumber set ["number"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gateway number when followed by the "`number`" parameter. To erase the current setting, omit "`number`".
"`number`"	Numeric string specifying the gateway number.

Feedback Examples

- `gatewaynumber set 5551212`
  returns
  `gatewaynumber 5551212`
- `gatewaynumber get`
  returns
  `gatewaynumber 5551212`

gatewaynumbertype

Sets or gets the Gateway Number Type, which can be either Direct Inward Dial (DID) or Number+Extension.

Syntax

```
gatewaynumbertype <get|did|number+extension>
```

Parameter	Description
get	Returns the current setting.
did	Indicates that the gateway number is a direct inward dial number; it has no extension.
number+extension	Indicates that the gateway number includes an extension. This option allows the call to go through directly (it dials the Gateway Number + ## + Extension as one number).

Feedback Examples

- `gatewaynumbertype did`
  returns
  `gatewaynumbertype direct_inward_dial`
- `gatewaynumbertype number+extension`
  returns
  `gatewaynumbertype number_plus_extension`
- `gatewaynumbertype get`
  returns
  `gatewaynumbertype number_plus_extension`

gatewayprefix

Sets or gets the gateway prefixes for the corresponding speeds.

Syntax

```
gatewayprefix get "valid speed"
gatewayprefix set "valid speed" ["value"]
```

Parameter	Description
get	When followed by the "valid speed" parameter, returns the current value for this speed.
"valid speed"	Valid speeds are: 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 8x56, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 16x56, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 24x56, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 1736, 32x56, 28x64, 1848, 1856, 1904, and 1920 kbps.
set	Sets the gateway prefix when followed by the "value" parameter. To erase the current setting, omit "value".
"value"	Prefix (code) used for a particular call speed. Consult your gateway instruction manual to determine which codes are appropriate.

Feedback Examples

- `gatewayprefix set 168 90`
  returns
  `gatewayprefix 168 90`
- `gatewayprefix get 168`
  returns
  `gatewayprefix 168 90`

Comments

Some gateways require a number to be prepended (prefix) to the gateway number. The prefix identifies which gateway is used to dial a call at a particular data rate.

gatewaysetup

Lists all available speeds and values at once.

Syntax

```
gatewaysetup
```

Feedback Examples

- `gatewaysetup`
  returns

```
56          <empty>     <empty>
64          #14         #16
2x56        #222        #333
112         #444        #555
2x64        <empty>     <empty>
```

  and so on.

gatewaysuffix

Sets or gets the gateway suffix.

Syntax

```
gatewaysuffix get "valid speed"
gatewaysuffix set "valid speed" ["value"]
```

Parameter	Description
get	Returns the current value for this speed.
"valid speed"	Valid speeds are: 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 8x56, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 16x56, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 24x56, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 1736, 32x56, 28x64, 1848, 1856, 1904, and 1920 kbps.
set	Sets the gateway suffix when followed by the "value" parameter. To erase the current setting, omit "value".
"value"	Suffix (code) used for a particular call speed. Consult your gateway instruction manual to determine which codes are appropriate. Use quotation marks around a compound name or strings that contain spaces. For example: "united states" or "111 222 333".

Feedback Examples

- `gatewaysuffix set 192 11`
  returns
  `gatewaysuffix 192 11`
- `gatewaysuffix get 192`
  returns
  `gatewaysuffix 192 11`

Comments

Some gateways require a number to be appended (suffix) to the gateway number. The suffix identifies which gateway is used to dial a call at a particular data rate.

gdsdirectory

Sets or gets whether the Polycom GDS directory server is enabled.

Syntax

```
gdsdirectory <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the Polycom GDS directory server.
no	Disables the Polycom GDS directory server. This is the default setting.

Feedback Examples

- `gdsdirectory get`
  returns
  `gdsdirectory yes`
- `gdsdirectory no`
  returns
  `gdsdirectory no`

Comments

Each Polycom system supports a single global directory server at any given time. Therefore, enabling the Polycom GDS directory server automatically disables any other global directory server, such as the LDAP directory server, that is enabled.

If the Polycom GDS directory server and another directory server are defined on the system, the Polycom GDS directory server becomes the default directory server after upgrading the system software.

gendial

Generates DTMF dialing tones.

Syntax

```
gendial <{0..9}|#|*>
```

Parameter	Description
{0..9}	Generates the DTMF tone corresponding to telephone buttons 0-9.
#	Generates the DTMF tone corresponding to a telephone # button.
*	Generates the DTMF tone corresponding to a telephone * button.

Feedback Examples

- `gendial 2`
  returns
  `gendial 2`
  and causes the system to produce the DTMF tone corresponding to a telephone's 2 button

gendialtonepots (deprecated)

Generates DTMF dialing tones over an analog phone line. This command has been deprecated. Polycom recommends using the gendial command on page 4-149 .

Syntax

```
gendialtonepots <{0..9}|#|*>
```

Parameter	Description
{0..9}	Generates the DTMF tone corresponding to telephone buttons 0-9.
#	Generates the DTMF tone corresponding to a telephone # button.
*	Generates the DTMF tone corresponding to a telephone * button.

Feedback Examples

- `gendialtonepots 2`
  returns
  `gendialtonepots 2`
  and causes the system to produce the DTMF tone corresponding to a telephone's 2 button

See Also

You can use the gendial command on page 4-149 .

generatetone

Turns the test tone on or off. The tone is used to check the monitor audio cable connections or to monitor the volume level.

Syntax

```
generatetone <on|off>
```

Parameter	Description
on	Turns on the test tone.
off	Turns off the test tone.

Feedback Examples

- `generatetone on`
  returns
  `generatetone on`
  and the system produces a test tone
- `generatetone off`
  returns
  `generatetone off`
  and the system stops producing a test tone

get screen

Returns the name of the current screen so that the control panel programmer knows which screen the user interface is currently displaying.

Syntax

```
get screen
```

Feedback Examples

- `get screen`
  returns
  `screen: near`
- `get screen`
  returns
  `screen: makeacall`
- `get screen`
  returns
  `screen: generatetone`

See Also

You can also use the screen command on page 4-281 .

getcallstate

Gets the state of the calls in the current conference.

Syntax

```
getcallstate
```

Feedback Examples

- `getcallstate`
  returns
  ```
  cs: call[34] speed[384] dialstr[192.168.1.101]
  state[connected]
  cs: call[1] inactive
  cs: call[2] inactive
  ```

See Also

To register the shell session to receive notifications about call state activities, see the callstate command on page 4-64 .

getconfiguredipaddress

Retrieves the currently configured IPv4 address from the system.

Syntax

```
getconfiguredipaddress
```

Feedback Examples

- `getconfiguredipaddress`
  returns
  `getconfiguredipaddress 1.2.3.4`

Comments

getconfiguredipaddress returns the currently configured IPv4 address of the system regardless of the status of the LAN connection. This differs from the `ipaddress get` command, which returns the current IP address of the system if it has an active LAN connection, else it returns 0.0.0.0.

The definition of "currently configured IPv4 address" depends on the IPv4 address configuration settings:

- If the **Connect to My LAN** setting is disabled, then 0.0.0.0 is returned. Otherwise, the definition depends on the IP Address (IPv4) setting.
- If the IP address is set manually the configured IP address is returned, regardless of whether the LAN connection is currently active.
- If the IP address is obtained automatically, the currently-assigned address is returned, or 0.0.0.0 is returned if there is no active connection.

gmscity

Sets or gets the Polycom Global Management System™ city information.

Syntax

```
gmscity get
gmscity set ["city"]
```

Parameter	Description
get	Returns the current setting.
set	Sets the Global Management System city name when followed by the "city" parameter. To erase the current setting, omit "city".
"city"	Character string specifying the city. Enclose the string in quotation marks if it includes spaces. Example: "San Antonio"

Feedback Examples

- `gmscity get`
  returns
  `gmscity <empty>`
- `gmscity set Paris`
  returns
  `gmscity Paris`
- `gmscity get`
  returns
  `gmscity Paris`

gmscontactemail

Sets or gets the Global Management System contact email information.

Syntax

```
gmscontactemail get
gmscontactemail set [“email”]
```

Parameter	Description
get	Returns the current contact email address.
set	Sets the Global Management system contact email address when followed by the “email” parameter. To erase the current setting, omit “email”.
“email”	Alphanumeric string specifying the email address.

Feedback Examples

- `gmscontactemail get`
  returns
  `gmscontactemail <empty>`
- `gmscontactemail set john_polycom@polycom.com`
  returns
  `gmscontactemail john_polycom@polycom.com`
- `gmscontactemail get`
  returns
  `gmscontactemail john_polycom@polycom.com`

gmscontactfax

Sets or gets the Global Management System contact fax information.

Syntax

```
gmscontactfax get
gmscontactfax set ["fax number"]
```

Parameter	Description
`get`	Returns the current contact fax information.
`set`	Sets the Global Management System contact fax information when followed by the "`fax number`" parameter. To erase the current setting, omit "`fax number`".
"`fax number`"	Character string specifying the fax number. Enclose the string in quotation marks if it includes spaces. Example: "`408 555 2323`"

Feedback Examples

- `gmscontactfax get`
  returns
  `gmscontactfax <empty>`
- `gmscontactfax set "408 555 2323"`
  returns
  `gmscontactfax 4085552323`
- `gmscontactfax get`
  returns
  `gmscontactfax 4085552323`

gmscontactnumber

Sets or gets the Global Management System contact number information.

Syntax

```
gmscontactnumber get
gmscontactnumber set [“number”]
```

Parameter	Description
`get`	Returns the current contact number.
`set`	Sets the Global Management System contact number when followed by the “`number`” parameter. To erase the current setting, omit “`number`”.
“`number`”	Numeric string specifying the contact number. Enclose the string in quotation marks if it includes spaces. Example: “`408 555 2323`”

Feedback Examples

- `gmscontactnumber get`
  returns
  `gmscontactnumber <empty>`
- `gmscontactnumber set “408 555 2323”`
  returns
  `gmscontactnumber 4085552323`
- `gmscontactnumber get`
  returns
  `gmscontactnumber 4085552323`

gmscontactperson

Sets or gets the Global Management System contact person information.

Syntax

```
gmscontactperson get
gmscontactperson set ["person"]
```

Parameter	Description
`get`	Returns the current contact person information.
`set`	Sets the Global Management System contact person name when followed by the "`person`" parameter. To erase the current setting, omit "`person`".
"`person`"	Character string specifying the contact person. Enclose the string in quotation marks if it includes spaces. Example: "`Mary Polycom`"

Feedback Examples

- `gmscontactperson get`
  returns
  `gmscontactperson <empty>`
- `gmscontactperson set "Mary Polycom"`
  returns
  `gmscontactperson "Mary Polycom"`
- `gmscontactperson get`
  returns
  `gmscontactnumber "Mary Polycom"`

gmscountry

Sets or gets the Global Management System country information.

Syntax

```
gmscountry get
gmscountry set ["countryname"]
```

Parameter	Description
get	Returns the current country setting.
set	Sets the Global Management System country information when followed by the "countryname" parameter. To erase the current setting, omit "countryname".
"countryname"	Character string specifying the country. Enclose the string in quotation marks if it includes spaces. Example: "United States"

Feedback Examples

- gmscountry get
  returns
  gmscountry <empty>
- gmscountry set Argentina
  returns
  gmscountry Argentina
- gmscountry get
  returns
  gmscountry Argentina

gmsstate

Sets or gets the Global Management System state information.

Syntax

```
gmsstate get
gmsstate set ["state"]
```

Parameter	Description
`get`	Returns the current state information.
`set`	Sets the Global Management System state information when followed by the "`state`" parameter. To erase the current setting, omit the "`state`" parameter.
"`state`"	Character string specifying the state information. Enclose the string in quotation marks if it includes spaces. Example: "`West Virginia`"

Feedback Examples

- `gmsstate get`
  returns
  `gmsstate <empty>`
- `gmsstate set Texas`
  returns
  `gmsstate Texas`
- `gmsstate get`
  returns
  `gmsstate Texas`

gmstechsupport

Sets or gets the Global Management System technical support phone number.

Syntax

```
gmstechsupport get
gmstechsupport set [“tech_support_digits”]
```

Parameter	Description
get	Returns the current tech support phone number information.
set	Sets the technical support information when followed by the “tech_support_digits” parameter. To erase the current setting, omit “tech_support_digits”.
“tech_support_digits”	Numeric string specifying the tech support phone number. Enclose the string in quotation marks if it includes spaces. Example: “408 555 2323”

Feedback Examples

- `gmstechsupport get`
  returns
  `gmstechsupport <empty>`
- `gmstechsupport set “408 555 2323”`
  returns
  `gmstechsupport 4085552323`
- `gmstechsupport get`
  returns
  `gmstechsupport 4085552323`

gmsurl

Gets the URL of the Global Management System server that manages your system. This command automatically appends "/pwx/vs_status.asp".

Syntax

```
gmsurl get {1..10}
gmsurl get all
```

Parameter	Description
get	Returns the current URL information for a selected server. A server must be specified.
{1..10}	Global Management System server number. The primary Global Management System server that performs account validation is always server 1.
all	Returns information for all Global Management System servers.

Feedback Examples

- `gmsurl get 1`
  returns
  `gmsurl 1 192.168.1.101/pwx/nx_status.asp`

Comments

When you are registered with the Global Management System, this information is automatically configured.

h239enable

Sets or gets the H.239 People+Content setting.

Syntax

```
h239enable get
h239enable <yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables H.239 People+Content on the system.
no	Disables H.239 People+Content on the system.

Feedback Examples

- `h239enable yes`
  returns
  `h239enable yes`
- `h239enable no`
  returns
  `h239enable no`
- `h239enable get`
  returns
  `h239enable no`

h323name

Sets or gets the system's H.323 name.

Syntax

```
h323name get
h323name set ["H.323name"]
```

Parameter	Description
get	Returns the current setting.
set	Sets the H.323 name when followed by the "H.323name" parameter. To erase this setting, omit the "H.323name" parameter.
"H.323name"	Character string specifying the H.323 name. Use quotation marks around strings that contain spaces. For example: "Polycom HDX Demo"

Feedback Examples

- `h323name set My`
  returns
  `h323name my`
- `h323name set "Polycom HDX Demo"`
  returns
  `h323name "polycom hdx demo"`
- `h323name get`
  returns
  `h323name "polycom hdx demo"`

h331audiomode

Set or gets the audio protocol sent during H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331audiomode
<get|g729|g728|g711u|g711a|g722-56|g722-48|g7221-16|g7221-24|
g7221-32|siren14|siren14stereo|off>
```

Parameter	Description
get	Returns the current setting.
g729|g728|g711u| g711a|g722-56| g722-48|g7221-16| g7221-24|g7221-32| siren14| siren14stereo	Sets the audio protocol to this value for H.331 calls.
off	Turns audio mode off for H.331 calls.

Feedback Examples

- `h331audiomode g.728`
  returns
  `h331audiomode g.728`
- `h331audiomode “siren 14”`
  returns
  `h331audiomode “siren 14”`
- `h331audiomode off`
  returns
  `h331audiomode off`

Comments

This value cannot be changed during a call.

h331dualstream

Set or gets the dual stream setting used for H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331dualstream <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Turns on dual stream for H.331 calls.
off	Turns off dual stream for H.331 calls.

Feedback Examples

- `h331dualstream on`
  returns
  `h331dualstream on`
- `h331dualstream off`
  returns
  `h331dualstream off`
- `h331dualstream get`
  returns
  `h331dualstream off`

Comments

This value cannot be changed during a call.

h331framerate

Sets or gets the frame rate sent during H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331framerate <get|30|15|10|7.5>
```

Parameter	Description
get	Returns the current setting.
30|15|10|7.5	Sets the frame rate to this value for H.331 calls.

Feedback Examples

- `h331framerate 15`
  returns
  `h331framerate 15`
- `h331framerate 30`
  returns
  `h331framerate 30`
- `h331framerate get`
  returns
  `h331framerate 30`

Comments

This value cannot be changed during a call.

h331videoformat

Sets or gets the video format for H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331videoformat <get|fcif>
```

Parameter	Description
get	Returns the current setting.
fcif	Sets the video format to FCIF for H.331 calls.

Feedback Examples

- `h331videoformat fcif`
  returns
  `h331videoformat fcif`
- `h331videoformat get`
  returns
  `h331videoformat fcif`

h331videoprotocol

Sets or gets the H.331 video protocol sent during H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331videoprotocol <get|h264|h263+|h263|h261>
```

Parameter	Description
get	Returns the current setting.
h264|h263+|h263|h261	Sets the video protocol to this value for H.331 calls.

Feedback Examples

- `h331videoprotocol h264`
  returns
  `h331videoprotocol h264`
- `h331videoprotocol h263+`
  returns
  `h331videoprotocol h263+`
- `h331videoprotocol get`
  returns
  `h331videoprotocol h263+`

Comments

This value cannot be changed during a call.

hangup

Hangs up the current video or phone call.

Syntax

```
hangup phone
hangup video ["callid"]
hangup all
```

Parameter	Description
phone	Disconnects the current analog phone (audio-only) site.
video	Disconnects the current video call. If the "callid" parameter is omitted, the system disconnects all video far sites in the call.
all	Disconnects all video and audio sites in the call.

Feedback Examples

- `hangup video`
  returns
  `hanging up video`
- `hangup video 42`
  returns
  `hanging up video`
  and disconnects the specified site, leaving other sites connected
- If callstate register is used for notifications,
  `hangup video 42`
  returns
  `hanging up video`
  `cleared: call[42]`
  `dialstring[`*`IP:192.168.1.101`* `NAME:`*`Polycom HDX Demo`*`]`
  `ended: call[`*`42`*`]`
  and disconnects the specified site, leaving other sites connected

Comments

After sending the `hangup` command, feedback that the call has ended can take up to 15 seconds.

history

Lists the last commands used in the current session.

Syntax

```
history
```

Feedback Examples

- `history`
  returns
  ```
  1 ipaddress set 192.168.1.101
  2 hostname set My
  3 lanport 100fdx
  4 callstate register
  5 lanport get
  6 history
  ```

Comments

If more than 64 commands have been issued, only the last 64 are displayed, with the most recent always at the bottom.

homecallquality

Sets or gets whether users are allowed to select the bandwidth for calls from the Place a Call screen.

Syntax

```
homecallquality <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the Call Quality menu on the home Place a Call screen.
no	Removes the Call Quality menu from the Place a Call screen.

Feedback Examples

- `homecallquality yes`
  returns
  `homecallquality yes`
- `homecallquality no`
  returns
  `homecallquality no`
- `homecallquality get`
  returns
  `homecallquality no`

homemultipoint (deprecated)

Sets or gets whether users are allowed to access the multipoint dialing screen via a **Multipoint** button on the home screen. This command has been deprecated.

Syntax

```
homemultipoint <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the **Multipoint** button on the Home screen.
no	Removes the **Multipoint** button from the Home screen.

Feedback Examples

- `homemultipoint yes`
  returns
  `homemultipoint yes`
- `homemultipoint no`
  returns
  `homemultipoint no`
- `homemultipoint get`
  returns
  `homemultipoint no`

Comments

This option is only available if multipoint calling is enabled.

homerecentcalls

Sets or gets whether users are allowed to access a list of recent calls made with the system by displaying the **Recent Calls** button on the Home screen.

Syntax

```
homerecentcalls <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the **Recent Calls** button on the Home screen.
no	Removes the **Recent Calls** button from the Home screen.

Feedback Examples

- `homerecentcalls yes`
  returns
  `homerecentcalls yes`
- `homerecentcalls no`
  returns
  `homerecentcalls no`
- `homerecentcalls get`
  returns
  `homerecentcalls no`

Comments

This option is only available if the Call Detail Report option is enabled.

homesystem

Sets or gets whether users are allowed to access the System screen by displaying the **System** button on the Home screen.

Syntax

```
homesystem <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the **System** button on the Home screen.
no	Removes the **System** button from the Home screen.

Feedback Examples

- `homesystem yes`
  returns
  `homesystem yes`
- `homesystem no`
  returns
  `homesystem no`
- `homesystem get`
  returns
  `homesystem no`

homesystemname

Sets or gets whether to display the name of the system on the Home screen, above the PIP window.

Syntax

```
homesystemname <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the system name on the Home screen.
no	Removes the system name from the Home screen.

Feedback Examples

- `homesystemname yes`
  returns
  `homesystemname yes`
- `homesystemname no`
  returns
  `homesystemname no`
- `homesystemname get`
  returns
  `homesystemname no`

hostname

Sets or gets the LAN host name, which is assigned to the system for TCP/IP configuration and can be used in place of an IP address when dialing IP calls.

Syntax

```
hostname get
hostname set ["hostname"]
```

Parameter	Description
get	Returns the current setting.
set	Sets the system's LAN host name when followed by the "hostname" parameter. If "hostname" is omitted, the system automatically sets it to Admin.
"hostname"	Character string specifying the LAN host name of the system. The LAN host name follows these format rules: Starts with a letter (A-a to Z-z). It is not case sensitive. Ends with a letter (A-a to Z-z) or a number (0 to 9). May include letters, numbers, and a hyphen. May not be longer than 63 characters. Note: The LAN host name is initialized during the out-of-box setup sequence. The LAN host name is the same as the system name, if the system name conforms to the rules above. If the system name does not conform to these rules, the invalid characters are removed from the system name. If the resulting string is empty, the default LAN host name is Admin.

Feedback Examples

- `hostname set`
  returns
  `hostname ADMIN`
  `restart system for changes to take effect. restart now? <y,n>`
- `hostname set "My"`
  returns
  `hostname My`
  `restart system for changes to take effect. restart now? <y,n>`
- `hostname get`
  returns
  `hostname My`

Comments

A LAN host name is required; it cannot be deleted or left blank. After making a change, you must restart the system for the setting to take effect.

importdirectory

Imports a directory in CSV or XML format

Syntax

```
importdirectory
<import data line 1>
<import data line 2>
<import data line 3>
.
.
.
importcomplete
```

Feedback Examples

- importdirectory
  <?xml version="1.0" encoding="UTF-8" ?>
  <addresses>
  <entrytype type="entry" name="Polycom Austin USA IP"
  filename="Polycom_Austin_USA_IP.abk"
  uniqueid="Polycom_Austin_USA_IP.abk">
  <address filename="Polycom_Austin_USA_IP.abk" langid=""
  displayname="" name="Polycom Austin USA IP">
  <h323 address="lobby.austin.polycom.com" speed="256"/>
  </address>
  </entrytype>
  <entrytype type="entry" name="Polycom Hong Kong"
  filename="Polycom_Hong_Kong.abk"
  uniqueid="Polycom_Hong_Kong.abk">
  <address filename="Polycom_Hong_Kong.abk" langid=""
  displayname="" name="Polycom Hong Kong">
  <isdn country_code="852" area_code="2876" numberA="9466"
  numberB="9466" speed="2x64"/>
  </address>
  </addresses>
  </xml>
  importcomplete
  returns
  importdirectory succeeded
- importdirectory
  A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y,Z,AA,AB,A
  C,AD,AE,AF,AG,AH,AI,AJ,AK,AL,AM,AN,AO,AP,AQ,AR,AS,AT,AU,AV,
  AW,AX,AY,AZ,BA,BB,BC,BD,BE,BF,BG,BH,BI,BJ,BK,BL,BM,BN,BO,BP
  ,BQ,BR,BS,BT,BU,BV,BW,BX,BY,BZ,CA,CB

  File Name,Entry Name,ISDN Country Code,ISDN Area Code,ISDN

```
NumberA,ISDN NumberB,ISDN Extension,ISDN Speed,IP Address,IP
Extension,IP Speed,Phone Country Code,Phone Area Code,Phone
Number,Mobile Country Code,Mobile Area Code,Mobile
Number,Email,Category,Meeting Name,Meeting Speed,Site Name
1,Call Type 1,Pref Number 1,Site Type 1,Site Name 2,Call Type
2,Pref Number 2,Site Type 2,Site Name 3,Call Type 3,Pref
Number 3,Site Type 3,Site Name 4,Call Type 4,Pref Number
4,Site Type 4,Site Name 5,Call Type 5,Pref Number 5,Site Type
5,Site Name 6,Call Type 6,Pref Number 6,Site Type 6,Site Name
7,Call Type 7,Pref Number 7,Site Type 7,Site Name 8,Call Type
8,Pref Number 8,Site Type 8,Site Name 9,Call Type 9,Pref
Number 9,Site Type 9,Site Unique Id 1,Site Server Address
1,Site Unique Id 2,Site Server Address 2,Site Unique Id 3,Site
Server Address 3,Site Unique Id 4,Site Server Address 4,Site
Unique Id 5,Site Server Address 5,Site Unique Id 6,Site Server
Address 6,Site Unique Id 7,Site Server Address 7,Site Unique
Id 8,Site Server Address 8,Site Unique Id 9,Site Server
Address 9,Unique Id,Entry Type,Language Id,Display Name,

"Loopback_1.abk","Loopback
1",1,700,9581108,9581108,---,2x64,---,---,---,---,---,---,-
--,---,---,---,"Polycom_Test",---,---,---,---,---,---,---,-
--,---,---,---,---,---,---,---,---,---,---,---,---,---,---,
---,---,---,---,---,---,---,---,---,---,---,---,---,---,---
,---,---,---,---,---,---,---,---,---,---,---,---,---,---,--
-,---,---,---,---,Loopback_1.abk,2,---,"Loopback 1",

"Loopback_2.abk","Loopback
2",1,700,7308982,7308982,---,2x64,---,---,---,---,---,---,-
--,---,---,---,"Polycom_Test",---,---,---,---,---,---,---,-
--,---,---,---,---,---,---,---,---,---,---,---,---,---,---,
---,---,---,---,---,---,---,---,---,---,---,---,---,---,---
,---,---,---,---,---,---,---,---,---,---,---,---,---,---,--
-,---,---,---,---,Loopback_2.abk,2,---,"Loopback 2",

"Polycom_Austin_HD.abk","Polycom Austin
HD",1,512,5148814,---,---,1024,hd.polycom.com,---,1024,---,
---,---,---,---,---,---,---,"Polycom_Test",---,---,---,---,---,
---,---,---,---,---,---,---,---,---,---,---,---,---,---,---,---
,---,---,---,---,---,---,---,---,---,---,---,---,---,---,---,--
-,---,---,---,---,---,---,---,---,---,---,---,---,---,---,---,-
--,---,---,---,---,---,---,Polycom_Austin_HD.abk,2,---,"Pol
ycom Austin HD",
importcomplete
returns
importdirectory succeeded
```

Comments

When importing XML-formatted data, the imported data must be in the same format as was obtained from the Polycom HDX system via the exportdirectory command on page 4-126 or the export directory utility in the web interface.

Duplicate entries are overwritten; other entries in the imported directory are added into the system's local directory.

All of the lines entered into the session after `importdirectory` is issued are interpreted as directory data.

Issuing the `importcomplete` command on its own line indicates that the directory import is complete.

If no data is received for 60 seconds during import, the import ends, and an "importdirectory timed out" error response is sent to the API session. All previous data entered is ignored.

Additional usage notes:

- Polycom HDX systems running software version 2.6 or later can import directory data exported from systems running version 2.6 and earlier versions.
- Polycom HDX systems running software versions earlier than 2.6 cannot import directory data exported by systems running software version 2.6 or later.

See Also

See the exportdirectory command on page 4-126 .

ipaddress

Sets or gets the LAN IP address (IPv4) of the system.

Syntax

```
ipaddress get
ipaddress set "xxx.xxx.xxx.xxx"
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the LAN IP address to the "xxx.xxx.xxx.xxx" parameter. This setting can only be changed when DHCP is off.
"xxx.xxx.xxx.xxx"	IP address of the system.

Feedback Examples

- `ipaddress set 192.168.1.101`
  returns
  `ipaddress 192.168.1.101`
- `ipaddress get`
  returns
  `ipaddress 192.168.1.101`

Comments

Use this command when you need to allocate a static IP address to your system. After making a change, you must restart the system for the setting to take effect.

ipdialspeed

Sets or gets the valid IP dialing speed, and enables or disables the specified speed.

Syntax

```
ipdialspeed get “valid speed”
ipdialspeed set “valid speed” <on|off>
```

Parameter	Description
get	Returns the current setting. The parameter “valid speed” is required.
“valid speed”	Valid speeds are: 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 1792, 1856, 1920, 1960, 1984, 2016, 2048, 2304, 2560, 2816, 3072, 3328, 3584, 3840, and 4096 kbps.
set	Sets the IP dialing speed. The parameters “valid speed” and on or off are required.
on	Enables the specified speed.
off	Disables the specified speed.

Feedback Examples

- ipdialspeed set 168 on
  returns
  `ipdialspeed set 168 on`
- ipdialspeed set 168 off
  returns
  `ipdialspeed set 168 off`
- ipdialspeed get 168
  returns
  `ipdialspeed 168 off`

Comments

The Polycom HDX system does not support separate settings for IP and ISDN dialing speeds.When you change a setting using this command, the settings associated with the isdndialspeed command on page 4-192 also change, and vice versa.

ipisdninfo

Sets or gets whether the Home screen displays IP information, ISDN information, both, or neither.

Syntax

```
ipisdninfo <get|both|ip-only|isdn-only|none>
```

Table 4-1

Parameter	Description
`get`	Returns the current setting.
`both`	Displays IP and ISDN information on the Home screen.
`ip-only`	Displays only IP information on the Home screen.
`isdn-only`	Displays only ISDN information on the Home screen.
`none`	Does not display any IP or ISDN information on the Home screen.

Feedback Examples

- `ipisdninfo ip-only`
  returns
  `ipisdninfo ip-only`
- `ipisdninfo both`
  returns
  `ipisdninfo both`
- `ipisdninfo get`
  returns
  `ipisdninfo both`

ipprecaudio, ipprecfecc, ipprecvideo

Sets or gets the IP Precedence priority level (Type of Service Value) for audio, far-end camera control (FECC) and other call control channels, and video. The value for each can be between 0 and 7.

Syntax

```
ipprecaudio get
ipprecaudio set {0..7}
ipprecfecc get
ipprecfecc set {0..7}
ipprecvideo get
ipprecvideo set {0..7}
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the IP precedence. A priority level is required. This must be an integer in the range `{0..7}`.

Feedback Examples

- `ipprecaudio set 5`
  returns
  `ipprecaudio 5`
- `ipprecaudio get`
  returns
  `ipprecaudio 5`

Comments

The ipprecfecc command is equivalent to the Control setting in the user interface.

If the typeofservice command on page 4-311 is set to `diffserv`, these commands are not applicable.

ipstat

Returns the LAN host name, WINS resolution, DHCP, IP address, DNS servers 1-4, default gateway, WINS server, and subnet mask.

Syntax

```
ipstat
```

Feedback Examples

- `ipstat`
  returns
  ```
  hostname My
  winsresolution no
  dhcp client
  ipaddress 192.168.1.101
  dnsserver 192.168.1.102
  dnsserver1 192.168.1.103
  dnsserver2 192.168.1.104
  dnsserver3 0.0.0.0
  defaultgateway 192.168.1.105
  subnetmask 255.255.255.0
  winsserver 192.168.1.106
  lanport auto
  webaccessport 80
  ```

isdnareacode

Sets or gets the ISDN area code or STD code associated with the area where the system is used. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdnareacode get
isdnareacode set ["area code"]
```

Parameter	Description
`get`	Returns the area code information.
`set`	Sets the ISDN area code when followed by the "`area code`" parameter. To erase the current setting, omit "`area code`".
"`area code`"	Numeric value.

Feedback Examples

- `isdnareacode set 700`
  returns
  `isdnareacode 700`
- `isdnareacode get`
  returns
  `isdnareacode 700`

isdncountrycode

Sets or gets the ISDN country code associated with the country where the system is used. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdncountrycode get
isdncountrycode set [“country code”]
```

Parameter	Description
`get`	Returns the country code information.
`set`	Sets the ISDN country code when followed by the “`country code`” parameter. To erase the current setting, omit “`country code`”.
“`country code`”	The ISDN country code.

Feedback Examples

- `isdncountrycode set 1`
  returns
  `isdncountrycode 1`
- `isdncountrycode get`
  returns
  `isdncountrycode 1`

Comments

The system is generally able to automatically determine the country code based on the country you selected during initial system setup.

isdndialingprefix

Sets or gets the ISDN dialing prefix used to access an outside line if the system is behind a PBX. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdndialingprefix get
isdndialingprefix set ["isdn prefix"]
```

Parameter	Description
`get`	Returns the dialing prefix.
`set`	Sets the ISDN prefix when followed by the "`isdn prefix`" parameter. To erase the current setting, omit "`isdn prefix`".
"`isdn prefix`"	The digit(s) that must be dialed to reach an outside line.

Feedback Examples

- `isdndialingprefix set 9`
  returns
  `isdndialingprefix 9`
- `isdndialingprefix get`
  returns
  `isdndialingprefix 9`

isdndialspeed

Sets or gets the valid dialing speed of the ISDN network interface. This command only applies if an ISDN network interface is connected to a system.

Syntax

```
isdndialspeed get “valid speed”
isdndialspeed set “valid speed” <on|off>
```

Parameter	Description
get	Returns the current setting. The parameter “valid speed” is required.
set	Sets the ISDN dialing speed. The parameters “valid speed” and on or off are required.
“valid speed”	Valid speeds are: 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 1792, 1856, and 1920 kbps. Note: The highest speed for BRI systems is 512 kbps, the highest speed for T1 systems is 1472 kbps, and the highest speed for E1 systems is 1920 kbps.
on	Enables the specified speed.
off	Disables the specified speed.

Feedback Examples

- `isdndialspeed set 256 on`
  returns
  `isdndialspeed set 256 on`
- `isdndialspeed set 168 off`
  returns
  `isdndialspeed set 168 off`
- `isdndialspeed get 168`
  returns
  `isdndialspeed 168 off`

Comments

The Polycom HDX system does not support separate settings for ISDN and IP dialing speeds.When you change a setting using this command, the settings associated with the ipdialspeed command on page 4-184 also change, and vice versa.

isdnnum

Sets or gets the ISDN video number or numbers assigned to the system. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdnnum get <1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2>
isdnnum set <1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2> ["number"]
```

Parameter	Description
get	Returns the current ISDN number associated with the specified B channel.
set	Sets the ISDN number for a B channel line when followed by the "number" parameter. To erase the current setting, omit "number".
1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2	The line and B channel. Valid values are: 1b1BRI line 1, B channel 1 1b2BRI line 1, B channel 2 2b1BRI line 2, B channel 1 2b2BRI line 2, B channel 2 3b1BRI line 3, B channel 1 3b2BRI line 3, B channel 2 4b1BRI line 4, B channel 1 4b2BRI line 4, B channel 2
"number"	The ISDN number(s) provided by your network service provider for the specified B channel.

Feedback Examples

- `isdnnum set 1b1 "700 555 1212"`
  returns
  `isdnnum 1b1 7005551212`
- `isdnnum get 1b1`
  returns
  `isdnnum 1b1 7005551212`

Comments

The isdnnum set 1b1 and isdnnum get 1b1 commands can be used for BRI and for PRI lines.

isdnswitch

Sets or gets the ISDN switch protocol. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdnswitch get
isdnswitch <pt-to-pt_at&t_5_ess|multipoint_at&t_5_ess|ni-1>
isdnswitch <nortel_dms-100|standard_etsi_euro-isdn|ts-031|ntt_ins-64>
```

Parameter	Description
`get`	Returns the current switch protocol.

`pt-to-pt_at&t_5_ess|`
`multipoint_at&t_5_ess|`
`ni-1|nortel_dms-100|`
`standard_etsi_euro-isdn|`
`ts-031|ntt_ins-64`
	Specifies the ISDN switch protocol to use.

Feedback Examples

- `isdnswitch pt-to-pt_at&t_5_ess`
  returns
  `isdnswitch pt-to-pt_at&t_5_ess`
- `isdnswitch` nortel_dms-100
  returns
  `isdnswitch` nortel_dms-100
- `isdnswitch get`
  returns
  `isdnswitch` nortel_dms-100

Comments

If more than one switch protocol is supported, you must find out from your telephone service provider which protocol to select. If you change the country settings, a new set of ISDN switch protocols is loaded.

See Also

To set the switch type for PRI systems, use the priswitch command on page 4-264 .

keypadaudioconf

Sets or gets the keypad audio confirmation. When this option is enabled, an audio response is echoed when a numeric key is pressed on the remote control.

Syntax

```
keypadaudioconf <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables audio confirmation.
no	Disables audio confirmation.

Feedback Examples

- `keypadaudioconf yes`
  returns
  `keypadaudioconf yes`
- `keypadaudioconf no`
  returns
  `keypadaudioconf no`
- `keypadaudioconf get`
  returns
  `keypadaudioconf no`

language

Sets or gets the language that will display on the system.

Syntax

```
language <set|get>
language set <arabic|chinese|englishuk|englishus|french|german|
hungarian|italian|japanese|korean|norwegian|polish|portuguese|
russian|spanish|traditional_chinese>
```

Parameter	Description
`get`	Returns the current language used on the system.
`set`	Sets the specified language. Requires a language parameter.

Feedback Examples

- `language set german`
  returns
  `language german`
- `language get`
  returns
  `language german`

lanport

Sets or gets the LAN port settings of the system.

Syntax

```
lanport
<get|auto|autohdx|autofdx|10hdx|10fdx|100hdx|100fdx|1000hdx|1000fdx>
```

Parameter	Description
get	Returns the current setting.
auto|autohdx|autofdx| 10hdx|10fdx| 100hdx|100fdx| 1000hdx|1000fdx	Sets the LAN speed and duplex mode. auto: Automatically negotiates the LAN speed and duplex mode. autohdx: Automatically negotiates the LAN speed but specifies half-duplex mode. autofdx: Automatically negotiates the LAN speed but specifies full-duplex mode. 10hdx: 10 Mbps, half duplex 10fdx: 10 Mbps, full duplex 100hdx: 100 Mbps, half duplex 100fdx: 100 Mbps, full duplex 1000hdx: 1000 Mbps, half duplex 1000fdx: 1000 Mbps, full duplex

Feedback Examples

- `lanport auto`
  returns
  `lanport auto`
  `restart system for changes to take effect. restart now? <y,n>`
- `lanport get`
  returns
  `lanport auto`

Comments

After making a change, you are prompted to restart the system.

ldapauthenticationtype

Sets or gets the authentication type required to authenticate with an LDAP server.

Syntax

```
ldapauthenticationtype get
ldapauthenticationtype set <anonymous|basic|ntlm>
```

Parameter	Description
get	Returns the current setting.
set	Sets the authentication type of an LDAP server. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
anonymous	Specifies "anonymous" as the authentication type of an LDAP server.
basic	Specifies "basic" as the authentication type of an LDAP server.
ntlm	Specifies "ntlm" as the authentication type of an LDAP server. This is the default setting.

Feedback Examples

- `ldapauthenticationtype get`
  returns
  `ldapauthenticationtype anonymous`
- `ldapauthenticationtype set basic`
  returns
  `ldapauthenticationtype basic`
- `ldapauthenticationtype set ntlm`
  returns
  `ldapauthenticationtype ntlm`

ldapbasedn

Sets or gets the base distinguished name (DN) of an LDAP server.

Syntax

```
ldapbasedn get
ldapbasedn set ["base dn"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the base DN of an LDAP server. To erase the current setting, omit the "`base dn`" parameter. Notes: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
"`base dn`"	Specifies the base DN of an LDAP server. Valid characters include: Unicode (ISO-10646) characters, including IA5/ASCII characters and extended characters such as é, Ø, and å.

Feedback Examples

- `ldapbasedn get`
  returns
  `ldapbasedn dc=hardware,dc=domain,dc=Polycom,dc=com`
  where:
  dc=domain component
- `ldapbasedn set dc=software,dc=domain,dc=Polycom,dc=com`
  returns
  `ldapbasedn dc=software,dc=domain,dc=Polycom,dc=com`
  where:
  dc=domain component

ldapbinddn

Sets or gets the bind DN for LDAP Simple Authentication.

Syntax

```
ldapbinddn get
ldapbinddn set ["bind dn"]
```

Parameter	Description
get	Returns the current setting.
set	Sets the bind DN for LDAP Simple Authentication. To erase the current setting, omit the "bind dn" parameter. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
"bind dn"	Specifies the bind DN of an LDAP server. Valid characters include: Unicode (ISO-10646) characters, including IA5/ASCII characters and extended characters such as é, Ø, and å.

Feedback Examples

- `ldapbinddn get`
  returns
  `ldapbinddn cn=plcm admin1,ou=plcmsupport,ou=plcmhelp, dc=hardware,dc=domain,dc=polycom,dc=com`
  where:
  `cn=common name`
  `ou=organizational unit`
  `dc=domain component`
- `ldapbinddn set cn=plcm admin2,ou=plcmaccounts,ou=plcmservice, dc=hardware,dc=domain,dc=polycom,dc=com`
  returns
  ldapbinddn `cn=plcm admin2,ou=plcmaccounts,ou=plcmservice, dc=hardware,dc=domain,dc=polycom,dc=com`
  where:
  `cn=common name`
  `ou=organizational unit`
  `dc=domain component`

ldapdirectory

Sets or gets whether the LDAP directory server is enabled.

Syntax

```
ldapdirectory <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the LDAP directory server.
no	Disables the LDAP directory server. This is the default setting.

Feedback Examples

- `ldapdirectory get`
  returns
  `ldapdirectory yes`
- `ldapdirectory no`
  returns
  `ldapdirectory no`

Comments

Each Polycom system supports a single global directory server at any given time. Therefore, enabling the LDAP directory server automatically disables any other global directory server, such as the Polycom GDS directory server, that is enabled.

If the Polycom GDS directory server and another directory server are defined on the system, the Polycom GDS directory server becomes the default directory server after upgrading the system software.

ldapntlmdomain

Sets or gets the domain in which authentication takes place in the Active Directory server.

Syntax

```
ldapntlmdomain get
ldapntlmdomain set ["domain"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the domain in which authentication takes place in the Active Directory server. To erase the current setting, omit the "`domain`" parameter. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
"`domain`"	Specifies the domain in which authentication takes place in the Active Directory server. Valid characters include: `0` through `9`, `a` through `z`, `A` through `Z`, hyphen (`-`), and period (`.`) Note: The domain name cannot begin or end with a hyphen or a period.

Feedback Examples

- `ldapntlmdomain get`
  returns
  `ldapntlmdomain AUSTIN`
- `ldapntlmdomain set ANDOVER`
  returns
  `ldapntlmdomain ANDOVER`

ldappassword

Sets the password for Simple or NT LAN Manager (NTLM) authentication of an LDAP server.

Syntax

```
ldappassword set <ntlm|basic> [“password”]
```

Parameter	Description
`set`	Sets the password for Simple or NTLM authentication of an LDAP server. To erase the current setting, omit the “`password`” parameter. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
`ntlm`	Specifies setting the password for NTLM authentication of an LDAP server.
`basic`	Specifies setting the password for Simple authentication of an LDAP server.
“`password`”	Specifies the password for Simple or NTLM authentication of an LDAP server. Valid characters include: Unicode (ISO-10646) characters, including IA5/ASCII characters and extended characters such as é, Ø, and å. Note: The server administrator may specify additional restrictions for password creation.

Feedback Examples

- `ldappassword set ntlm P!cmp@s5wd`
  returns
  `ldappassword ntlm P!cmp@s5wd`
- `ldappassword set basic P0!ycOmp@s5`
  returns
  `ldappassword basic P0!ycOmp@s5`

ldapserveraddress

Sets or gets the LDAP server address.

Syntax

```
ldapserveraddress get
ldapserveraddress set ["address"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the IP address or the DNS name of an LDAP server. To erase the current setting, omit the "`address`" parameter. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.

"`address`"	Specifies the IP address or the DNS name of an LDAP server.
	The DNS name requires alphanumeric characters. Valid characters include:
	`0` through `9`
	`a` through `z`
	`A` through `Z`
	`-`
	Note: The "-" character cannot be used as the first or last character in the DNS name.

Feedback Examples

- `ldapserveraddress get`
  returns
  `ldapserveraddress hardware.domain.polycom.com`
- `ldapserveraddress set software.domain.polycom.com`
  returns
  `ldapserveraddress software.domain.polycom.com`

ldapserverport

Sets or gets the port number of an LDAP server.

Syntax

```
ldapserverport get
ldapserverport set ["port number"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the port number of an LDAP server. To erase the current setting, omit the "`port number`" parameter. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
"`port number`"	Specifies the port number of an LDAP server. The default setting is 389.

Feedback Examples

- `ldapserverport get`
  returns
  `ldapserverport 389`
- `ldapserverport set 636`
  returns
  `ldapserverport 636`

ldapsslenabled

Sets or gets the Secure Sockets Layer (SSL)/Transport Layer Security (TLS) encryption state for LDAP operations.

Syntax

```
ldapsslenabled get
ldapsslenabled set [on|off]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SSL encryption state for LDAP operations. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
`on`	Specifies "`on`" as the encryption state for LDAP operations. This is the default setting.
`off`	Specifies "`off`" as the encryption state for LDAP operations.

Feedback Examples

- `ldapsslenabled get`
  returns
  `ldapsslenabled off`
- `ldapsslenabled set on`
  returns
  `ldapsslenabled on`

ldapusername

Sets or gets the user name for NTLM authentication of an LDAP server.

Syntax

```
ldapusername get
ldapusername set [“user name”]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the user name for NTLM authentication of an LDAP server. To erase the current setting, omit the “`user name`” parameter. Note: This parameter does not change the setting on the server. Instead, this parameter changes how the Polycom system recognizes the server.
“`user name`”	Specifies the user name for NTLM authentication of an LDAP server. Valid characters include: Unicode (ISO-10646) characters, including IA5/ASCII characters and extended characters such as é, Ø, and å.

Feedback Examples

- `ldapusername get`
  returns
  `ldapusername jpolycom`
- `ldapusername set mpolycom`
  returns
  `ldapusername mpolycom`

linestate

Sets or gets API session registration to receive notifications about IP or ISDN line state changes.

Syntax

```
linestate get
linestate <register|unregister>
```

Parameter	Description
`get`	Returns the current setting.
`register`	Registers to receive notification when IP or ISDN line states change.
`unregister`	Unregisters to receive notification when IP or ISDN line states change.

Feedback Examples

- `linestate register`
  returns
  `linestate registered`
- `linestate unregister`
  returns
  `linestate unregistered`
- `linestate get`
  returns
  `linestate unregistered`

Comments

IP line state changes are only received in a serial API session.

listen

Registers the RS-232 session to listen for incoming video calls, phone calls, or system sleep or awake state and, consequently, to give notification when the registered state occurs.

Syntax

```
listen <video|phone|sleep>
```

Parameter	Description
`video`	Instructs the session to listen for incoming video calls. When this event occurs, the message "`listen video ringing`" is received.
`phone`	Instructs the session to listen for incoming phone calls. When this event occurs, the message "`listen phone ringing`" is received.
`sleep`	Instructs the session to listen for when the system goes into sleep mode. When this event occurs, the message "`listen going to sleep`" is received. When the system wakes up, the message "`listen waking up`" is received. Deprecated. Polycom recommends using `sleep register` instead of this command.

Feedback Examples

- `listen sleep`
  returns
  `listen sleep registered`
  to acknowledge that the session is now registered to listen for sleep mode
- `listen phone`
  returns
  `listen phone registered`
  to acknowledge that the session is now registered to listen for incoming phone calls
- `listen video`
  returns
  `listen video registered`
  to acknowledge that the session is now registered to listen for incoming video calls

localdatetime

Sets or gets whether to display the local date and time on the Home screen.

Syntax

```
localdatetime <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the local date and time on the Home screen.
no	Removes the local date and time from the Home screen.

Feedback Examples

- `localdatetime yes`
  returns
  `localdatetime yes`
- `localdatetime no`
  returns
  `localdatetime no`
- `localdatetime get`
  returns
  `localdatetime no`

marqueedisplaytext

Sets or gets the text to display in the dialing entry field on the Place a Call screen.

Syntax

```
marqueedisplaytext get
marqueedisplaytext set “text”
```

Parameter	Description
`get`	Returns the current marquee display text.
`set`	Sets the text to display in the dialing entry field followed by the text to use. Enclose the string in quotation marks if it includes spaces.
`“text”`	Text to display. Enclose the character string in quotation marks if it includes spaces. If `“text”` is omitted, the system automatically sets it to `Welcome`.

Feedback Examples

- `marqueedisplaytext set “Select an entry from the directory.”`
  returns
  `marqueedisplaytext “Select an entry from the directory.”`
- `marqueedisplaytext get`
  returns
  `marqueedisplaytext “Select an entry from the directory.”`

Comments

This command has an effect only when the dialingdisplay is set to display a marquee.

See Also

The dialing display is specified by the dialingdisplay command on page 4-97 .

maxgabinternationalcallspeed

Sets or gets the maximum speed for international ISDN calls made from the global directory. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
maxgabinternationalcallspeed get
maxgabinternationalcallspeed set "valid speed"
```

Parameter	Description
get	Returns the current valid speed.
set	Sets the maximum speed for international calls when followed by a valid speed value.
"valid speed"	Valid speeds are: 2x64, 128, 256, 384, 512, 768, 1024, and 1472 kbps.

Feedback Examples

- `maxgabinternationalcallspeed set 128`
  returns
  `maxgabinternationalcallspeed 128`
- `maxgabinternationalcallspeed get`
  returns
  `maxgabinternationalcallspeed 128`

maxgabinternetcallspeed

Sets or gets the maximum speed for Internet (IP/H.323) calls made from the global directory.

Syntax

```
maxgabinternetcallspeed get
maxgabinternetcallspeed set “valid speed”
```

Parameter	Description
`get`	Returns the current valid speed.
`set`	Sets the maximum speed for Internet calls when followed by a valid speed value.
“valid speed”	Valid speeds are: 128, 256, 384, 512, 768, 1024, and 1472 kbps.

Feedback Examples

- `maxgabinternetcallspeed set 384`
  returns
  `maxgabinternetcallspeed 384`
- maxgabinternetcallspeed get
  returns
  `maxgabinternetcallspeed 384`

maxgabisdncallspeed

Sets or gets the maximum speed for ISDN (H.320) calls made from the global directory. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
maxgabisdncallspeed get
maxgabisdncallspeed set "valid speed"
```

Parameter	Description
get	Returns the current valid speed.
set	Sets the maximum speed for ISDN calls when followed by a valid speed value.
"valid speed"	Valid speeds are: 56, 64, 128, 256, 384, 512, 768, 1024, and 1472 kbps.

Feedback Examples

- `maxgabisdncallspeed set 384`
  returns
  `maxgabisdncallspeed 384`
- `maxgabisdncallspeed get`
  returns
  `maxgabisdncallspeed 384`

maxtimeincall

Sets or gets the maximum number of minutes allowed for call length.

Syntax

```
maxtimeincall get
maxtimeincall set [{0..999}]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the maximum time for calls when followed by a parameter from `{0..999}`. To erase the current setting, omit the time parameter or set it to 0. The call will then stay up indefinitely.
`{0..999}`	Maximum call time in minutes. Must be an integer in the range `{0..999}`.

Feedback Examples

- `maxtimeincall set`
  returns
  `maxtimeincall <empty>`
- `maxtimeincall set 180`
  returns
  `maxtimeincall 180`
- `maxtimeincall get`
  returns
  `maxtimeincall 180`

Comments

When the time has expired in a call, a message asks you if you want to hang up or stay in the call. If you do not answer within one minute, the call automatically disconnects.

mcupassword

Enters and sends the MCU password to the MCU.

Syntax

```
mcupassword ["password"]
```

Parameter	Description
password	Specifies the password to send to the MCU.

meetingpassword

Sets the meeting password.

Syntax

```
meetingpassword set [“password”]
```

Parameter	Description
`set`	Sets the meeting password if followed by the password parameter. To erase the current setting, omit the password parameter.
“password”	User-defined password. Valid characters are: A through Z (lower and uppercase), -, _, @, /, ;, ,, ., \, and 0 through 9. The length is limited to 33 characters. The password cannot include spaces.

Feedback Examples

- `meetingpassword set psswd`
  returns
  `meetingpassword psswd`
- `meetingpassword set “My psswd”`
  returns
  `error: command has illegal parameters`

Comments

To receive a notification that the password has failed, you must use the `popupinfo register` command to register the current API session to receive popup text.

See Also

See also the related popupinfo command on page 4-250 .

monitor1 (deprecated)

Sets or gets the aspect ratio for Monitor 1. With the implementation of the configdisplay command on page 4-77 , this command has been deprecated.

Syntax

```
monitor1 <get|4:3|16:9|vga>
```

Parameter	Description
get	Returns the current setting.
4:3|16:9	Sets the display aspect ratio to 4:3 (standard) or 16:9 (wide screen).
vga	Sets the display to VGA and causes the system to restart.

Feedback Examples

- `monitor1 4:3`
  returns
  `monitor1 4:3`
- `monitor1 16:9`
  returns
  `monitor1 16:9`
- `monitor1 get`
  returns
  `monitor1 16:9`

See Also

See the configdisplay command on page 4-77 .

monitor1screensaveroutput

Sets or gets whether to send either black video or "No Signal" to Monitor 1 when the screen saver activates.

Syntax

```
monitor1screensaveroutput <get|black|no_signal>
```

Parameter	Description
get	Returns the current setting.
black	Sends black video to Monitor 1 when the system goes to sleep and the screen saver activates.
no_signal	Sends no signal to Monitor 1 when the system goes to sleep and the screen saver activates.

Feedback Examples

- `monitor1screensaveroutput black`
  returns
  `monitor1screensaveroutput black`
- `monitor1screensaveroutput no_signal`
  returns
  `monitor1screensaveroutput no_signal`
- `monitor1screensaveroutput get`
  returns
  `monitor1screensaveroutput no_signal`

See Also

See the monitor2screensaveroutput command on page 4-222 .

monitor2 (deprecated)

Sets or gets the aspect ratio for Monitor 2. With the implementation of the configdisplay command on page 4-77 , this command has been deprecated.

Syntax

```
monitor2 off
monitor2 <get|4:3|16:9>
monitor2 vga
```

Parameter	Description
off	Disables the second monitor output.
get	Returns the current setting.
4:3|16:9	Sets the aspect ratio to 4:3 (standard) or 16:9 (wide screen).
vga	Sets the display to VGA.

Feedback Examples

- `monitor2 off`
  returns
  `monitor2 off`
- `monitor2 16:9`
  returns
  `monitor2 16:9`
- `monitor2 get`
  returns
  `monitor2 16:9`

See Also

See the configdisplay command on page 4-77 .

monitor2screensaveroutput

Sets or gets whether to send either black video or "No Signal" to Monitor 2 when the screen saver activates.

Syntax

```
monitor2screensaveroutput <get|black|no_signal>
```

Parameter	Description
black	Sends black video to Monitor 2 when the system goes to sleep and the screen saver activates.
no_signal	Sends no signal to Monitor 2 when the system goes to sleep and the screen saver activates.
get	Returns the current setting.

Feedback Examples

- `monitor2screensaveroutput black`
  returns
  `monitor2screensaveroutput black`
- `monitor2screensaveroutput no_signal`
  returns
  `monitor2screensaveroutput no_signal`
- `monitor2screensaveroutput get`
  returns
  `monitor2screensaveroutput no_signal`

See Also

See the monitor1screensaveroutput command on page 4-220 .

mpautoanswer

Sets or gets the Auto Answer Multipoint Video mode, which determines how the system will handle an incoming call in a multipoint video conference.

Syntax

```
mpautoanswer <get|yes|no|donotdisturb>
```

Parameter	Description
get	Returns the current setting.
yes	Connects incoming video calls automatically. The screen will split into a multipoint call progress screen as the incoming call is answered.
no	For an incoming video call, the user will be notified and given the choice to answer the call. If the user selects Yes, the call is added to the ongoing conference. If the user selects No, the call is rejected. The default is No.
donotdisturb	The user is not notified of incoming video calls. The sites that placed the calls receive a Far Site Busy (H.320) or Call Rejected (H.323) code.

Feedback Examples

- `mpautoanswer` yes
  returns
  `mpautoanswer` yes
- `mpautoanswer` no
  returns
  `mpautoanswer` no
- `mpautoanswer` get
  returns
  `mpautoanswer` no
- `mpautoanswer donotdisturb`
  returns
  `mpautoanswer donotdisturb`

Comments

If `mpautoanswer` is set to `no` or `donotdisturb`, you must rely on API session notifications to answer inbound calls.

mpmode

Sets or gets the multipoint conference viewing mode for the system in a multipoint call. The multipoint mode can be set to auto, discussion, presentation, or fullscreen. By default, it is set to auto.

Syntax

```
mpmode <get|auto|discussion|presentation|fullscreen>
```

Parameter	Description
`get`	Returns the current setting.
`auto`	In Auto mode, the system switches between Full Screen Mode and Discussion mode, depending on the interaction between the sites. If one site is talking uninterrupted for 15 seconds or more, the speaker appears full screen.
`presentation`	In Presentation mode, the person who is speaking appears full screen to the far sites, while the person who is speaking sees all the other sites on a split screen.
`discussion`	In Discussion mode (also called Continuous Presence mode), every site sees all the sites in the meeting at the same time, on a split screen.
`fullscreen`	In Full Screen mode, every site in the call sees the current speaker, or the latest person to speak, on the full screen.

Feedback Examples

- `mpmode auto`
  returns
  `mpmode auto`
- `mpmode discussion`
  returns
  `mpmode discussion`
- `mpmode get`
  returns
  `mpmode discussion`

Comments

This option is not available unless the multipoint option is enabled.

What you see during a multipoint call can depend on many factors such as the system's monitor configuration, the number of sites in the call, whether content is shared, and whether dual monitor emulation is used.

mtumode

Sets or gets the MTU mode. The `mtumode` and `mtusize` commands allow you to change the Maximum Transmission Unit (MTU) size, to adjust for the best interoperability with the host network. Set mtumode to `specify`, then use `mtusize` to specify a value. If mtumode is set to `default`, the system automatically sets the MTU value to 1260.

Syntax

```
mtumode <get|default|specify>
```

Parameter	Description
`get`	Returns the current setting.
`default`	Sets the Maximum Transmission Unit size to the default value of 1260.
`specify`	Allows you to specify a Maximum Transmission Unit size other than the default setting.

Feedback Examples

- `mtumode default`
  returns
  `mtumode default`
- `mtumode specify`
  returns
  `mtumode specify`
- `mtumode get`
  returns
  `mtumode specify`
- `mtusize 660`
  returns
  `mtusize 660`
- `mtumode foo`
  returns
  `error: command has illegal parameters`

See Also

See also the related mtusize command on page 4-227 .

mtusize

Sets or gets the MTU size. The `mtumode` and `mtusize` commands allow you to change the Maximum Transmission Unit (MTU) size, to adjust for the best interoperability with the host network. Set mtumode to `specify`, then use `mtusize` to specify a value. If mtumode is set to `default`, the system automatically sets the MTU value to 1260.

Syntax

`mtusize <get|660|780|900|1020|1140|1260|1500>`

Parameter	Description
`get`	Returns the current setting.
`660|780|900|1020|1140|1260|1500`	Sets the value of the Maximum Transmission Unit size.

Feedback Examples

- `mtumode specify`
  returns
  `mtumode specify`
- `mtusize 660`
  returns
  `mtusize 660`
- `mtusize 1140`
  returns
  `mtusize 1140`
- `mtusize get`
  returns
  `mtusize 1140`

See Also

See also the related mtumode command on page 4-226 .

mute

Sets or gets the near or far site mute settings.

Syntax

```
mute <register|unregister>
mute near <get|on|off|toggle>
mute far get
```

Parameter	Description
`register`	Registers to receive notification when the mute mode changes.
`unregister`	Disables register mode.
`near`	Sets the command for the near site. Requires `on`, `off`, `toggle`, or `get`.
`get`	Returns the current setting for the near or far site.
`on`	Mutes the near site (`mute near on`).
`off`	Unmutes the near site (`mute near off`).
`toggle`	If mute near mode is `mute near on`, this switches to `mute near off`, and vice versa.
`far`	Returns the mute state of the far site system. Requires the parameter `get`.

Feedback Examples

- `mute register`
  returns
  `mute registered`
- `mute near on`
  returns
  `mute near on`
- `mute far get`
  returns
  `mute far off`

Comments

In register mode, the system sends notification to the API session when the far or near site is muted or unmuted.

muteautoanswer

Sets or gets the Mute Auto Answer Calls mode. When this setting is selected, the microphone is muted to prevent the far site from hearing the near site when the system answers automatically.

Syntax

```
muteautoanswer <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables Mute Auto Answer Calls mode. The microphone will be muted when the system receives a call while in Auto Answer mode.
no	Disables Mute Auto Answer Calls mode. The microphone will not be muted when the system receives a call while in Auto Answer mode.

Feedback Examples

- `muteautoanswer yes`
  returns
  `muteautoanswercalls yes`
- `muteautoanswer no`
  returns
  `muteautoanswercalls no`
- `muteautoanswer get`
  returns
  `muteautoanswercalls no`

natconfig

Sets or gets the NAT configuration.

Syntax

```
natconfig <get|auto|manual|off>
```

Parameter	Description
get	Returns the current setting.
auto	Specifies that the system is behind a NAT; specifies that the system will automatically discover the public (WAN) address.
manual	Specifies that the system is behind a NAT. Requires the WAN address to be assigned using the wanipaddress command on page 4-343 .
off	Disables the option when the system is not behind a NAT.

Feedback Examples

- `natconfig auto`
  returns
  `natconfig auto`
- `natconfig manual`
  returns
  `natconfig manual`
- `natconfig off`
  returns
  `natconfig off`
- `natconfig get`
  returns
  `natconfig off`

nath323compatible

Sets or gets the **NAT is H.323 Compatible** setting.

Syntax

```
nath323compatible <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Specifies that NAT is capable of translating H.323 traffic.
no	Specifies that NAT is not capable of translating H.323 traffic.

Feedback Examples

- `nath323compatible yes`
  returns
  `nath323compatible yes`
- `nath323compatible no`
  returns
  `nath323compatible no`
- `nath323compatible get`
  returns
  `nath323compatible no`

nearloop

Activates or deactivates the Near End Loop test.

Syntax

```
nearloop <on|off>
```

Parameter	Description
on	Activates the Near End Loop, a complete internal test of the system.
off	Deactivates the Near End Loop.

Feedback Examples

- `nearloop on`
  returns
  `nearloop on`
- `nearloop off`
  returns
  `nearloop off`

Comments

When Near End Loop is on, you can test the encoder/decoder on the system. This test is not available when you are in a call.

netstats

Returns network statistics for each call.

Syntax

```
netstats [{0..n}]
```

Parameter	Description
{0..n}	Call in a multipoint call, where n is the maximum number of calls supported by the system. 0 is the first site connected. If no call is specified, netstats returns information about the near site.

Feedback Examples

- `netstats 2`
  returns
  ```
  call:1 txrate:128 K rxrate:128 K pktloss:0 %pktloss:0.0 %
  tvp:H.263
  rvp:H.263 tvf:CIF rvp:CIF tap:G.722.1 rap:G.722.1 tcp:H.323
  rcp:H.323
  where:
  txrate=transmit clock rate
  rxrate=receive clock rate
  pktloss=number of packet loss/errors
  %pktloss=percentage of packet loss/errors
  tvp=transmit video protocol
  rvp=receive video protocol
  tvf=transmit video format
  rvf=receive video format
  tap=transmit audio protocol
  rap=receive audio protocol
  tcp=transmit comm protocol
  rcp=receive comm protocol
  ```

nonotify

Unregisters the API client to receive status notifications.

Syntax

```
nonotify <callstatus|captions|linestatus|mutestatus|screenchanges>
nonotify <sysstatus|sysalerts|vidsourcechanges>
```

Parameter	Description
calendarmeetings	Stops the system from receiving meeting reminders.
callstatus	Stops the system from receiving changes in call status, such as a connection or disconnection.
captions	Stops the system from capturing closed captions as they appear on the screen.
linestatus	Stops the system from receiving line status notifications.
mutestatus	Stops the system from receiving changes in audio mute status.
screenchanges	Stops the system from receiving notification when a user interface screen is displayed.
sysstatus	Stops the system from receiving system status notifications.
sysalerts	Stops the system from receiving system alerts.
vidsourcechanges	Stops the system from receiving notification of camera source changes.

Feedback Examples

- `nonotify callstatus`
  returns
  `nonotify callstatus success`
- If entered again,
  `nonotify callstatus`
  returns
  `info: event/notification not active:callstatus`
- `nonotify calendarmeetings`
  returns
  `nonotify calendarmeetings success`

See Also

See the related notify command on page 4-235 .

notify

Lists the notification types that are currently being received, or registers to receive status notifications.

Syntax

```
notify
notify <callstatus|captions|linestatus|mutestatus|screenchanges>
notify <sysstatus|sysalerts|vidsourcechanges>
notify calendarmeetings
```

Parameter	Description
`notify`	Lists the notification types that are currently being received, in the following format: `registered for <num> notifications[:notification type>...]`
`calendarmeetings`	Registers the API client to receive meeting reminders.
`callstatus`	Registers the system to receive changes in call status, such as a connection or disconnection, in the following format: `notification:callstatus:<call direction>:<call id>:<far site name>:<far site number>:<connection status>:<call speed>:<status-specific cause code from call engine>:<calltype>`
`captions`	Registers the system to capture closed captions as they appear on the screen, in the following format: `notification:caption:<"caption string">`
`linestatus`	Registers the system to receive line status notifications as they occur, in the following format: `notification:linestatus:<direction>:<call id>:<line id>:<channel id>:<connection status>`
`mutestatus`	Registers the system to receive changes in audio mute status, in the following format: `notification:mutestatus:<near or far>:<call id>:<site name>:<site number>:<mute status>`
`screenchanges`	Registers the system to receive notification when a user interface screen is displayed, in the following format: `notification:screenchange:<screen name>:<screen def name>`

Parameter	Description
sysstatus	Registers the system to receive system status notifications, in the following format: notification:sysstatus:<sys parameter name>:<value1>[:<value2>...]
sysalerts	Registers the system to receive system alerts, in the following format: notification:sysalert:<alert name>:<value1>[:<value2>...]
vidsourcechanges	Registers the system to receive notification of camera source changes, in the following format: notification:vidsourcechange:<near or far>:<camera index>:<camera name>:<people or content>

Feedback Examples

- `notify mutestatus`
  returns
  `notify mutestatus success`
  acknowledging that the session is now registered to receive mutestatus notifications
- `notify callstatus`
  returns
  `notify callstatus success`
  acknowledging that the session is now registered to receive callstatus notifications
- If entered again,
  `notify callstatus`
  returns
  `info: event/notification already active:callstatus`
- `notify`
  returns
  `registered for 2 notifications:mutestatus:`
- `notify calendarmeetings`
  `returns`
  `notify calendarmeetings success`

The following are examples of notifications that may be returned after registering to receive them.

- `notification:callstatus:outgoing:34:Polycom HDX Demo:192.168.1.101:connected:384:0:videocall`
- `notification:mutestatus:near:near:near:near:muted`
- `notification:screenchange:systemsetup:systemsetup_a`

- `notification:vidsourcechange:near:1:Main:people`
- `notification:linestatus:outgoing:32:0:0:disconnected`
- `notification:vidsourcechange:near:6:ppcip:content`
- `notification:vidsourcechange:near:none:none:content`
- `notification: calendarmeetings: AAAaAEFsZXguTWFjRG9uYWxkQHBvbHljb20uY29tAVEACIjMne2/ndgARgA AAADr9GlhsSjWEZBcAAKzMphJBwA4wicbtr3UEZArAKAkO9LtAAACZpKWAA De7hJleQIOS7j2mzRJxkLKAAADI/G8AAAQ:Product Planning:10`

Comments

The `notify callstatus` command registers the current API session for call status notifications. The API client receives call status notifications as a call progresses.

Registration for status notifications is session-specific. For example, registering for alerts in a Telnet session does not return alerts in a simultaneous RS-232 session with the same system.

The `notify captions` command registers the current API session to receive notifications as closed captions are displayed. If closed captions are dropped for some reason, no notification is received. This command is typically used for capturing captions being displayed for archival purpose.

Duplicate registrations produce another success response. The notify setting remains in effect, even if you restart the system or update the software with system settings saved.

See Also

See also the nonotify command on page 4-234 and the callinfo command on page 4-63 .

ntpmode

Sets or gets the mode of the system's Network Time Protocol (NTP) server. NTP server time is used to ensure synchronized time data in the local Call Detail Report.

Syntax

```
ntpmode <get|auto|off|manual>
```

Parameter	Description
get	Returns the current time server mode.
auto	Automatically selects an NTP server from the Internet.
off	Turns off the use of an NTP server.
manual	Lets you specify a server using the ntpserver command on page 4-239 .

Feedback Examples

- `ntpmode auto`
  returns
  `ntpmode auto`
- `ntpmode off`
  returns
  `ntpmode off`
- `ntpmode manual`
  returns
  `ntpmode manual`
- `ntpmode get`
  returns
  `ntpmode manual`

See Also

See the ntpserver command on page 4-239 .

ntpserver

Sets or gets an Network Time Protocol (NTP) server, using the IP address or the DNS name of the server.

Syntax

```
ntpserver get
ntpserver set ["xxx.xxx.xxx.xxx"|"server name"]
```

Parameter	Description
`get`	Gets the IP address of the NTP server.
`set`	Sets the IP address of the NTP server when followed by a valid parameter. To erase the current setting, omit the ["xxx.xxx.xxx.xxx"|"server name"] parameter.
`"xxx.xxx.xxx.xxx"`	The IP address of the NTP server.
`"server name"`	The DNS name of the NTP server.

Feedback Examples

- `ntpserver set`
  returns
  `ntpserver <empty>`
- `ntpserver set 192.168.1.205`
  returns
  `ntpserver 192.168.1.205`
- `ntpserver get`
  returns
  `ntpserver 192.168.1.205`

Comments

This command allows you to use an internal time server and thus synchronize the system's time with the time on your internal network. The system uses this time only for the local Call Detail Report.

numberofmonitors (deprecated)

Returns the number of display monitors configured. With the implementation of the configdisplay command on page 4-77 , this command has been deprecated.

Syntax

```
numberofmonitors get
```

Feedback Examples

- `numberofmonitors get`
  returns
  `numberofmonitors 1`
  `when one monitor is configured for display`
- `numberofmonitors get`
  returns
  `numberofmonitors 2`
  `when two monitors are configured for display`

See Also

The recommended command for accessing display configuration is the configdisplay command on page 4-77 . For example, to determine the state of Monitor 2, use `configdisplay monitor2 get`.

numdigitsdid

Sets or gets the number of digits in the DID Gateway number (E.164 dialing).

Syntax

```
numdigitsdid <get|{0..24}>
```

Parameter	Description
get	Returns the current setting.
{0..24}	Specifies the number of digits in DID numbers.

Feedback Examples

- `numdigitsdid 7`
  returns
  `numdigitsdid 7`
- `numdigitsdid get`
  returns
  `numdigitsdid 7`

Comments

The number of digits in the DID is that portion of the full DID that the Gateway will be given from the ISDN service provider as the Called Party Line Identifier. This, in turn, will be passed to the Gatekeeper for address resolution.

numdigitsext

Sets or gets the number of digits in the Number+Extension Gateway number (E.164 dialing).

Syntax

```
numdigitsext <get|{0..24}>
```

Parameter	Description
get	Returns the current setting.
{0..24}	The number of digits in the gateway number if gatewaynumbertype command on page 4-144 is set to number+extension.

Feedback Examples

- `numdigitsext 10`
  returns
  `numdigitsext 10`
- `numdigitsext get`
  returns
  `numdigitsext 10`

Comments

The number of digits in that number is that portion of the full Number+Extension number that the Gateway will be given from the ISDN service provider as the Called Party Line Identifier. This, in turn, will be passed to the Gatekeeper for address resolution.

ocsdirectory

Enable Polycom HDX systems to retrieve and display the Microsoft Office Communications Server contact list and to disable other global directory services.

Syntax

```
ocsdirectory <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the Microsoft Office Communications Server 2007 directory server.
no	Disables the Microsoft Office Communications Server 2007 directory server. This is the default setting.

Feedback Examples

- `ocsdirectory get`
  returns
  `ocsdirectory yes`
- `ocsdirectory no`
  returns
  `ocsdirectory no`

Comments

Polycom HDX systems must be registered with the Microsoft Office Communications Server 2007 directory server in order to enable the Microsoft Office Communications Server 2007 directory service.

Each Polycom HDX system supports a single global directory server at any given time. Therefore, enabling the Microsoft Office Communications Server 2007 directory server automatically disables any other enabled global directory server, such as the Polycom GDS or LDAP directory server.

If more than one global directory is defined on a system, the following rules apply when you upgrade the system software:

• If the Microsoft Office Communications Server 2007 directory server and another directory server are defined on the system, the Microsoft Office Communications Server 2007 directory server becomes the default directory server after upgrading the system software.

• If the Polycom GDS directory server and another directory server (not the

Microsoft Office Communications Server 2007 directory server) are defined on the system, the Polycom GDS directory server becomes the default directory server after upgrading the system software.

oobcomplete

Completes the setup wizard and restarts the Polycom HDX system.

Syntax

```
oobcomplete
```

Feedback Examples

```
oobcomplete
```
returns
```
oobcomplete
```

Comments

The `oobcomplete` command is processed only when the Polycom HDX system is in setup wizard mode.

To execute `oobcomplete` successfully, the Polycom HDX system name must be configured.

pause

Pauses the command interpreter before executing the next command. Pauses are useful when commands are retrieved from a script file.

Syntax

```
pause {0..65535}
```

Parameter	Description
{0..65535}	Number of seconds to pause.

Feedback Examples

- `pause 3`
  returns
  `pausing for 3 seconds`
- `pause 0`
  returns
  `pausing for 0 seconds`

phone

Flashes the analog phone line.

Syntax

```
phone <clear|flash>
```

Parameter	Description
clear	Clears phone number from the text box.
flash	Sends flash hook to a POTS connection.

See Also

Use the flash command on page 4-130 to specify a call ID.

pip

Sets or gets the on-screen PIP mode. The PIP feature allows the near site to adjust near-camera views while in a video conference.

Syntax

```
pip <get|on|off|camera|swap|register|unregister|location>
pip location <get|0|1|2|3>
```

Parameter	Description
get	Returns the current setting.
on	Enables PIP mode. The system shows a PIP window that remains in the lower right corner of the screen until the video call is completed.
off	Disables PIP mode.
camera	Causes the PIP window to appear when the selected camera position is changed. The PIP window disappears when the camera has finished moving.
swap	Toggles the content of the PIP and the main display between the near-site and far-site view.
register	Registers the system to give notification when PIP is turned on or off.
unregister	Unregisters the system to give notification when PIP is turned on or off.
location	Places the PIP window in the specified corner of the screen: 0 = bottom right corner 1 = top right corner 2 = top left corner 3 = bottom left corner get = Returns the current location

Feedback Examples

- `pip on`
  returns
  `pip on`
- `pip swap`
  returns
  `pip swapped`

- `pip location get`
  returns
  `pip location 1`
- `pip register`
  returns
  `pip registered`

popupinfo

Registers or unregisters the session to receive popup text and button choices text.

Syntax

```
popupinfo <get|register|unregister>
```

Parameter	Description
register	Registers to receive popup information.
unregister	Unregisters to receive popup information.
get	Returns the current setting.

Feedback Examples

- `popupinfo register`
  returns
  `popupinfo registered`
- `popupinfo unregister`
  returns
  `popupinfo unregistered`
- `popupinfo get`
  returns
  `popupinfo unregistered`

The following examples show notifications that may be returned after registering to receive popup text and button choices text.

- `popupinfo: question: Sorry. Cannot dial number because you are already in a call with the site.`
- `popupinfo: choice0: Ok`
  is returned if a call fails
- `popupinfo: question: Save Changes?`
  `popupinfo: choice0: Yes`
  `popupinfo: choice1: No`
  `popupinfo: answered: Yes`
  is returned if the user edits the password field

preset

Sets the presets or goes (moves) to the presets for the near or far camera source. Also registers or unregisters the API session to give notification when the user sets or goes to presets.

Syntax

```
preset <register|unregister>
preset register get
preset far <go|set> <{0..15}>
preset near <go|set> <{0..99}>
```

Parameter	Description
`register`	Registers the system to give notification when the user or far site sets or goes to a preset. Returns the current preset registration state when followed by the `get` parameter.
`unregister`	Disables register mode.
`far`	Specifies the far camera. Requires a `set` or `go` parameter and a preset identifier.
`go`	Moves the camera to a camera preset. Requires a "`preset`" parameter.
`set`	Sets a camera preset. Requires a "`preset`" parameter.
`{0..15}`, `{0..99}`	Camera preset identifier. Must be an integer in the range `{0..15}` for a far-site camera or `{0..99}` for a near-site camera.
`near`	Specifies the near camera. Requires a `set` or `go` parameter and a preset identifier.

Feedback Examples

- `preset register`
  returns
  `preset registered`
- `preset near go 1`
  returns
  `preset near go 1`
  `and moves the near-site camera to the preset 1 position`
- `preset near set 2`
  returns
  `preset near set 2`
  and saves the current location/position of the near-site camera as preset 2

Comments

Up to 100 preset camera positions can be set. These camera presets can be distributed across the far camera and up to four near-site cameras.

pricallbycall

Sets or gets the PRI call-by-call value. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
pricallbycall get
pricallbycall set {0..31}
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets PRI call-by-call when followed by a value from `{0..31}`.
`{0..31}`	Range of call-by-call values.

Feedback Examples

- `pricallbycall set 1`
  returns
  `pricallbycall 1`
- `pricallbycall get`
  returns
  `pricallbycall 1`

Comments

Call-by-call is a number from 0 to 31, which is optionally sent to an upstream telephone company switch, if required. For example, specify a value of 6 for a T1 PRI network interface module that is directly connected to an ATT 5ESS switch, which is provisioned with Accunet. You must consult with the telephone company service provider to determine whether a call-by-call value is required for a particular PRI line. For most cases, the default value of 0 is correct. Always use the value 0 when connected to a PBX. A non-zero value should not be required in Europe. Values greater than 31 are reserved for internal use and must not be used.

prichannel

Sets or gets the PRI channels that will be active for the PRI line. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
prichannel get all
prichannel get {1..n}
prichannel set all
prichannel set {1..n} <on|off>
```

Parameter	Description
`get`	Returns the current setting. Requires a parameter from `<all|{1..n}>`.
`all`	Selects all PRI channels and returns all channels and settings similar to `briallenable`.
`{1..n}`	Range of available PRI channels. For PRI T1, the range is `1..23`. For PRI E1, the range is `1..30`.
`set`	Sets the PRI channels to be active when followed by a parameter from `<all|{1..n}>` and from `<on|off>`.
`on`	Activates the selected PRI channels.
`off`	Disables the selected PRI channels.

Feedback Examples

- `prichannel 1 set on`
  returns
  `prichannel 1 on`
- `prichannel set 23 off`
  returns
  `prichannel 23 off`
- `prichannel get 23`
  returns
  `prichannel 23 off`

Important PRI Channel Information

Outgoing Call. For an outgoing call, the system uses the first active and available channel starting with the lowest number from the channel range (1-23 for a PRI T1 and 1-30 for a PRI E1). If an additional channel is needed, the system chooses the next incremental number. For example, if channels 1

through 7 are inactive, but 8 is active and available, then 8 is the first channel that can be used by the system to place an outgoing call. If an additional channel is needed, the system will use the next available active channel in the range (which could be 9, and so on).

Incoming Calls. For incoming calls, the system may use the highest numbered channel in the range and, if needed, proceed to the next channel number in descending order, depending on the type of third-party equipment attached to the system. For example, an incoming call arrives on channel 23, then 22, 21, and so on.

Dedicated full PRI T1 or E1 Line. All channels should be active for a full T1 or E1 line dedicated to your system.

Fractional PRI T1 or E1. Channel selection should be handled by your PRI network administrator.

PRI E1 Channel Information. The PRI Status screen (for E1) shows 30 channels. However, E1 trunk lines have 32 timeslots, numbered 0 - 31. Timeslot 0 is used for framing, and timeslot 16 is used for call signaling (the D channel). The remaining 30 timeslots are used as bearer (data) channels. In call signaling between our equipment and the switch, these channels are numbered 1-15, 17-31. But the PRI Status screen numbers these channels contiguously in the range 1-30. Therefore, on the PRI Status screen, channels 1-15 control the status of timeslots 1-15, and channels 16-30 control the status of timeslots 17-31.

pricsu

Sets or gets the PRI CSU mode for a T1 interface.

Syntax

```
pricsu <get|internal|external>
```

Parameter	Description
get	Returns the current setting.
internal	Sets the internal CSU mode. This is the default.
external	Sets the external CSU mode. When selected, you must specify the PRI line buildout.

Feedback Examples

- `pricsu internal`
  returns
  `pricsu internal`
- `pricsu external`
  returns
  `pricsu external`
- `pricsu get`
  returns
  `pricsu external`

Comments

By default, the T1 PRI network interface module is set for internal CSU mode.

See Also

The PRI line buildout for a T1 interface is set using the prilinebuildout command on page 4-259 .

pridialchannels

Sets or gets the number of PRI channels to dial in parallel. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
pridialchannels get
pridialchannels set {1..n}
```

Parameter	Description
`set`	Sets the number of PRI channels to be dialed in parallel when followed by a parameter from `{1..n}`. To erase the current setting, omit the parameter.
`get`	Returns the current number of channels dialed in parallel.
`{1..n}`	Range of numbers of PRI channels that can be dialed in parallel. For PRI T1, the range is `1..12`. For PRI E1, the range is `1..15`.

Feedback Examples

- `pridialchannels set 3`
  returns
  `pridialchannels 3`
- `pridialchannels get`
  returns
  `pridialchannels 3`

Comments

By default, ISDN channels are dialed three at a time. On PRI systems, you can choose the number of channels to dial in parallel.

priintlprefix

Sets or gets the PRI international dialing prefix.

Syntax

```
priintlprefix get
priintlprefix set ["prefix"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the PRI international dialing prefix when followed by the parameter "`prefix`". To erase the current setting, omit the parameter.
"`prefix`"	Numeric string.

Feedback Examples

- `priintlprefix set 011`
  returns
  `priintlprefix 011`
- `priintlprefix get`
  returns
  `priintlprefix 011`

Comments

The international prefix defaults to 011 for North America and 00 for European countries. The default depends on the country.

prilinebuildout

Sets or gets the PRI line buildout for a T1 interface.

Syntax

```
prilinebuildout get
prilinebuildout set <0|-7.5|-15|-22.5>
prilinebuildout set <0-133|134-266|267-399|400-533|534-665>
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the PRI line buildout. It requires an output "`attenuation in dB`" or an "`attenuation in feet`".
`0|-7.5|-15|-22.5`	Output attenuation values in dB. For internal CSUs.
`0-133|134-266|267-399|400-533|534-665`	Output attenuation values in feet. For external CSUs.

Feedback Examples

- `prilinebuildout set -7.5`
  returns
  `prilinebuildout -7.5`
- `prilinebuildout get`
  returns
  `prilinebuildout -7.5`

Comments

If you are using an internal CSU, enter the output attenuation in dB. If you are using an external CSU, enter the output attenuation in feet.

See Also

The PRI CSU mode for a T1 interface is set using the pricsu command on page 4-256 .

prilinesignal

Sets or gets the PRI line signal.

Syntax

```
prilinesignal get
prilinesignal set <esf/b8zs|crc4/hdb3|hdb3>
```

Parameter	Description
`get`	Returns the current PRI line signal setting.
`set`	Sets the PRI line signal. It requires one of the following parameters: `esf/b8zs`, `crc4/hdb3`, `hdb3`
`esf/b8zs`	A method of signal encoding used with a T1 interface. This is the only choice for T1. This value actually chooses both a framing format and an encoding method. Legacy frame formats, such as D4, are not supported. In addition, older encoding methods, such as B7ZS, are not supported.
`crc4/hdb3`	A method of signal encoding used with an E1 interface. This is the default value. Data is encoded using HDB3 to ensure proper one-density, and CRC4 error checking is enabled on both transmit and receive.
`hdb3`	A method of signal encoding used with an E1 interface. CRC4 error checking is disabled.

Feedback Examples

- `prilinesignal set esf/b8zs`
  returns
  `prilinesignal esf/b8zs`
- `prilinesignal get`
  returns
  `prilinesignal esf/b8zs`

primarycallchoice (deprecated)

Sets or gets the primary call type for placing calls. With the implementation of the videocallorder command on page 4-335 and the voicecallorder command on page 4-336 , this command has been deprecated.

Syntax

```
primarycallchoice <get|isdn|ip|sip|manual>
```

Parameter	Description
get	Returns the current primary call type.
isdn	Sets the primary call type to ISDN.
ip	Sets the primary call type to IP.
sip	Sets the primary call type to SIP.
manual	Sets the primary call type to manual.

Feedback Examples

- `primarycallchoice ip`
  returns
  `primarycalltype ip`
- `primarycallchoice get`
  returns
  `primarycalltype ip`

prinumberingplan

Sets or gets the PRI numbering plan. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
prinumberingplan <get|isdn|unknown>
```

Parameter	Description
get	Returns the current setting.
isdn	With this parameter, the numbering plan is identified to the upstream switch as ISDN, and the number type, which is either national or international, is determined from the dialed phone number. If the dialed phone number starts with the international dialing prefix that is currently selected, the type is set to the international and the prefix is removed from the number before the number is sent to the upstream switch. Otherwise, the number is marked as national and passed to the upstream switch without modification.
unknown	This is the default selection. With this parameter, the numbering plan and number type are sent to the upstream as unknown, and the dialed phone number is sent without notification. The unknown parameter is preferred and should work with all properly configured PBXs and with most telephone company switches. A notable exception in North America is an ATT 5ESS switch, which is provisioned with Accunet, or an ATT 4ESS switch. For these switches, set the numbering type to ISDN.

Feedback Examples

- `prinumberingplan isdn`
  returns
  `prinumberingplan isdn`
- `prinumberingplan unknown`
  returns
  `prinumberingplan unknown`
- `prinumberingplan get`
  returns
  `prinumberingplan unknown`

prioutsideline

Sets or gets the PRI number that is dialed for outside line access.

Syntax

```
prioutsideline get
prioutsideline set ["outside_line"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the outside-line-access PRI number when followed by the parameter "`outside_line`". To erase the current setting, omit the parameter.
"`outside_line`"	Numeric string. This number is provided by your network service provider.

Feedback Examples

- `prioutsideline set 9`
  returns
  `prioutsideline 9`
- `prioutsideline get`
  returns
  `prioutsideline 9`

Comments

This number is needed if your system is on a PBX.

priswitch

Sets or gets the PRI switch.

Syntax

```
priswitch get
priswitch set <att5ess|att4ess|norteldms|ni2>
priswitch set <net5/ctr4|nttins-1500|ts-038>
```

Parameter	Description
`get`	Returns the current switch protocol.
`set`	Sets the PRI switch. One of the switch protocol parameters is required.
`att5ess|att4ess| norteldms|ni2| net5/ctr4| nttins-1500|ts-038`	Switch protocol values. For E1, `net5/ctr4` is the default. `net5/ctr4` is the standard ETSI protocol derived from ITU Q.931. For T1, `net5/ctr4` is also provided for certain Asian countries, such as Japan, Hong Kong, and Taiwan.

Feedback Examples

- `priswitch set att5ess`
  returns
  `priswitch att5ess`
- `priswitch get`
  returns
  `priswitch att5ess`

Comments

If more than one switch protocol is supported, you must find out from your telephone service provider which protocol to select. NET5/CTR4 is the default. It is the standard ETSI protocol derived from ITU Q.931. If you change the country settings, a new set of PRI switch protocols is loaded.

reboot

Restarts the system.

Syntax

```
reboot [y|now|n]
```

Parameter	Description
y	Reboots the system without prompting you.
now	Reboots the system without prompting you.
n	Does not reboot the system.

Feedback Examples

- `reboot y`
  does not prompt the user to confirm and reboots the system with no other feedback returned
- `reboot now`
  does not prompt the user to confirm and reboots the system with no other feedback returned
- `reboot n`
  does not reboot the system and returns
  enter "reboot y" or "reboot now" to initiate system reboot

Comments

The preferred format is `reboot now`.

recentcalls

Returns the list of recent calls.

Syntax

```
recentcalls
```

Feedback Examples

- `recentcalls`
  returns
  ```
  "Polycom HDX Demo" 30/Nov/2008 14:39:56 Out
  192.168.1.101 30/Nov/2008 14:40:07 Out
  192.168.1.102 30/Nov/2008 14:40:35 Out
  192.168.1.103 30/Nov/2008 20:27:33 Out
  "John Polycom HDX 9004" 30/Nov/2008 02:13:23 In
  192.168.1.104 30/Nov/2008 02:20:08 In
  192.168.1.105 30/Nov/2008 02:21:40 In
  192.168.1.106 30/Nov/2008 05:53:04 In
  "Mary Polycom HDX 9004" 30/Nov/2008 07:00:19 In
  ```

registerall (deprecated)

Alias for the **all register** command.

Syntax

```
registerall
```

Feedback Examples

```
registerall
```

returns

```
callstate registered
camera registered
chaircontrol registered
linestate registered
mute registered
pip registered
popup registered
popupinfo registered
preset registered
screen registered
vcbutton registered
volume registered
sleep registered
phone registered
video registered
vcstream registered
vc pod registered
vc lan registered
```

See Also

This command is an alias for the preferred all register command on page 4-20 .

To unregister user feedback, use the all unregister command on page 4-22 or the unregisterall (deprecated) command on page 4-313 .

registerthissystem

Sets or gets the system's IP address to be registered and displayed in the global directory when the system is powered on.

Syntax

```
registerthissystem <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables this option (register this system).
no	Disables this option.

Feedback Examples

- `registerthissystem yes`
  returns
  `registerthissystem yes`
- `registerthissystem no`
  returns
  `registerthissystem no`
- `registerthissystem get`
  returns
  `registerthissystem no`

Comments

If you do not enable this option, the system has access to the GDS, but the IP address does not appear in the global directory.

remotecontrol

Set or gets the setting for intercepting signals from the system remote control.

Syntax

```
remotecontrol disable <get|all|none>
remotecontrol disable "valid button" ["valid button"...]
remotecontrol dontintercept <all|none>
remotecontrol dontintercept "valid button" ["valid button"...]
remotecontrol enable <all|none>
remotecontrol enable "valid button" ["valid button"...]
remotecontrol intercept <get|all|none>
remotecontrol intercept "valid button" ["valid button"...]
```

Parameter	Description
`disable`	Disables specified remote control button(s) so that the system does not respond.
`get`	Returns the current setting.
`all`	All of the remote control buttons.
`none`	None of the remote control buttons.
`"valid button"`	Name of a specific button such as call, hangup, left, right, up, down, select, home, directory, back, zoom-, zoom+, volume-, volume+, mute, far, near, auto, camera, preset, pip, keyboard, delete, ., 0-9, *, #, graphics, or help.
`dontintercept`	Stops intercepting specified remote control button(s).
`enable`	Enables specified remote control button(s).
`intercept`	Disables and intercepts specified remote control button(s). Notification of button press events is sent to the API client.
`power`	Enables or disables the **Power** button on the remote control.

Feedback Examples

- `remotecontrol disable all`
  returns
  `remotecontrol disable all success`
- `remotecontrol intercept pip`
  returns
  `remotecontrol intercept pip success`

- `remotecontrol disable get`
  returns
  `disabled 1 buttons:pip`
- `remotecontrol intercept get`
  returns
  `intercepting 0 buttons`
- `remotecontrol intercept all`
  returns
  `remotecontrol intercept all success`

The following is an example of a notification that may be returned after sending the intercept command.

- `notification:buttonintercept::ir:`
  `notification:buttonintercept::ir:`
  `notification:buttonintercept:home:ir:`

Comments

Remote control disable commands do not persist across the power cycle.

remotemonenable

Gets the state of remote room and call monitoring.

Syntax

```
remotemonenable <get>
```

Feedback Examples

- `remotemonenable get`
  returns
  `remotemonenable on`
- `remotemonenable get`
  returns
  `remotemonenable off`

requireacctnumtodial

Enables or disables the **Require Account Number to Dial** option. It is used to log calls to a specific account so that they can be tracked and billed to the appropriate departments.

Syntax

```
requireacctnumtodial <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the option.
no	Disables the option.

Feedback Examples

- `requireacctnumtodial yes`
  returns
  `requireacctnumtodial yes`
- `requireacctnumtodial no`
  returns
  `requireacctnumtodial no`
- `requireacctnumtodial get`
  returns
  `requireacctnumtodial no`

Comments

When this option is selected, you cannot make a call without first entering an account number. This account number is saved in the Global Management System server database along with information specific to the call. Typically, the Global Management System administrator assigns the account number.

resetsystem

Resets the system and, optionally, deletes system settings or local address book entries.

Syntax

```
resetsystem [deletesystemsettings] [deletelocaldirectory]
```

Parameter	Description
deletesystemsettings	Resets all configuration settings to default values
deletelocaldirectory	Deletes all local directory entries from the address book.

Feedback Examples

- `resetsystem`
  returns
  `resetsystem`
- `resetsystem deletesystemsettings`
  returns
  `resetsystem deletesystemsettings`
- `resetsystem deletelocaldirectory`
  returns
  `resetsystem deletelocaldirectory`
- `resetsystem deletesystemsettings deletelocaldirectory`
  returns
  `resetsystem deletesystemsettings deletelocaldirectory`

roomphonenumber

Sets or gets the number of the phone that is located in the same room as the system.

Syntax

```
roomphonenumber get
roomphonenumber set ["number"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the room phone number when followed by the "`number`" parameter. To erase the current setting, omit the "`number`" parameter.
"`number`"	Phone number for a telephone (not the system) in the room. Use quotation marks around the number if it contains spaces. For example: "`408 555 2323`"

Feedback Examples

- `roomphonenumber set`
  returns
  `roomphonenumber <empty>`
- `roomphonenumber set "408 555 2323"`
  returns
  `roomphonenumber 408.555.2323`
- `roomphonenumber get`
  returns
  `roomphonenumber 408.555.2323`

Comments

If the system is managed by the Global Management System software, this number will be provided to the Global Management System administrator if the person using the system requests help.

rs232 baud, rs232port1 baud

The `rs232 baud` command sets or gets the baud rate for the first RS-232 port. For systems with two serial ports, use `rs232port1 baud` to set the rate for the second serial port.

Syntax

```
rs232 baud <get|9600|14400|19200|38400|57600|115200>
rs232port1 baud <get|9600|14400|19200|38400|57600|115200>
```

Parameter	Description
`get`	Returns the current baud rate setting.
`9600|14400|19200|38400|57600|115200`	Sets the RS-232 port to this baud rate.

Feedback Examples

- `rs232 baud 9600`
  returns
  `rs232 baud 9600`
- `rs232 baud get`
  returns
  `rs232 baud 9600`
- `rs232port1 baud 14400`
  returns
  `rs232port1 baud 14400`
- `rs232port1 baud get`
  returns
  `rs232port1 baud 14400`

rs232 mode, rs232port1 mode

The `rs232 mode` command sets or gets the operational mode of the first RS-232 port. For systems with two serial ports, use `rs232port1 mode` to set the mode for the second serial port.

Syntax

```
rs232 mode <get|passthru|control|debug|camera_ptz|closed_caption|
vortex_mixer|cps|interactive_touch_board|polycom_annotation|
smartboard|pointmaker>
rs232port1 mode <get|passthru|control|debug|camera_ptz|closed_caption|
vortex_mixer|cps|interactive_touch_board|polycom_annotation|
smartboard|pointmaker>
```

Parameter	Description
`get`	Returns the current mode setting.
`passthru`	Sets the RS-232 port to Pass Thru mode.
`contol`	Sets the RS-232 port to Control mode.
`debug`	Sets the RS-232 port to Debug mode.
`camera_ptz`	Sets the RS-232 port to Camera PTZ mode.
`closed_caption`	Sets the RS-232 port to Closed Caption mode.
`vortex_mixer`	Sets the RS-232 port to Vortex Mixer mode.
`interactive_touch_board`	Sets the RS-232 port to Interactive Touch Board mode.
`smartboard`	Sets the RS-232 port to Interactive Touch Board mode (to control a Polycom SMART board device).
`polycom_annotation`	Sets the RS-232 port to Polycom Annotation mode.
`cps|pointmaker`	Reserved for future applications.

Feedback Examples

- `rs232 mode control`
  returns
  `rs232 mode control`
- `rs232port1 mode closed_caption`
  returns
  `rs232port1 mode closed_caption`

- `rs232port1 mode get`
  returns
  `rs232port1 mode closed_caption`

rs366dialing

Sets or gets RS-366 dialing. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
rs366dialing <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Enables RS-366 dialing.
off	Disables RS-366 dialing.

Feedback Examples

- `rs366dialing on`
  returns
  `rs366dialing on`
- `rs366dialing off`
  returns
  `rs366dialing off`
- `rs366dialing get`
  returns
  `rs366dialing off`

Comments

Enable this option if you want to call from the system through the DCE connection to the far-site video conferencing system. Disable this option if you are using your DCE to dial the call or if you have a dedicated connection to the far site.

rt

Sets or gets the RT serial interface control signal (receive timing: clock). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
rt <get|normal|inverted>
```

Parameter	Description
get	Returns the current setting.
normal	Sets the signal to normal (rising edge receives data).
inverted	Sets the signal to inverted (falling edge receives data).

Feedback Examples

- `rt normal`
  returns
  `rt normal`
- `rt inverted`
  returns
  `rt inverted`
- `rt get`
  returns
  `rt inverted`

Comments

The default setting is "`normal`".

rts

Sets or gets the RTS serial interface control signal (request to send). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
rts <get|normal|inverted>
```

Parameter	Description
get	Returns the current setting.
normal	Sets the signal to normal (high voltage is logic 1).
inverted	Sets the signal to inverted (low voltage is logic 1).

Feedback Examples

- `rts normal`
  returns
  `rts normal`
- `rts inverted`
  returns
  `rts inverted`
- `rts get`
  returns
  `rts inverted`

Comments

The default setting is “`normal`”.

screen

Returns the name of the current user interface screen on the system, registers or unregisters for screen changes, or goes to a specific user interface screen.

Syntax

```
screen
screen register get
screen [register|unregister]
screen "screen_name"
```

Parameter	Description
`screen`	Returns the name of the current user interface screen if not followed by other parameters.
`register`	Registers for user interface screen changes. In register mode, the name of every screen accessed is listed.
`get`	Returns the registration state for screen change events when followed by the `get` parameter.
`unregister`	Unregisters from user interface screen changes.
`"screen_name"`	Changes the user interface to display the specified screen. The supported screens depend on the system configuration. To determine the name to use for a specific screen, navigate to that screen in the user interface and send the `screen` command.

Feedback Examples

- `screen`
  returns
  `screen: adminsettings`
  if the Admin Settings screen is currently displayed in the user interface
- `screen register`
  returns
  `screen registered`
- `screen monitors`
  returns
  `screen: monitors`
  and displays the Monitors screen in the user interface

screencontrol

Disables or enables navigation to specified user interface screens of the system.

Syntax

```
screencontrol enable <all|none|“screen_name”>
screencontrol disable <all|none|“screen_name”>
```

Parameter	Description
`enable`	Enables navigation to the specified user interface screen(s).
`all`	All of the user interface screens.
`none`	None of the user interface screens.
`“screen_name”`	Name of a specific user interface screen.
`disable`	Disables navigation to the specified user interface screen(s).

Feedback Examples

- `screencontrol enable all`
  returns
  `screencontrol enable all success`
- `screencontrol disable adminsettings`
  returns
  `screencontrol disable adminsettings success`
  and disables navigation to the Admin Settings screen of the user interface
- `screencontrol disable none`
  returns
  `screencontrol disable none success`
  and reverses all screen disable commands
- `screencontrol disable main`
  returns
  `error: screen “main” unknown`
  `screencontrol disable main failed`
  if “main” is an unknown screen name

See Also

Refer to the screen command on page 4-281 for details about accessing screen names.

secondarycallchoice (deprecated)

Sets or gets the secondary call type for placing calls. With the implementation of the videocallorder command on page 4-335 and the voicecallorder command on page 4-336 , this command has been deprecated.

Syntax

```
secondarycallchoice <get|isdn|ip|sip|none>
```

Parameter	Description
get	Returns the current secondary call type.
isdn	Sets the secondary call type to ISDN.
ip	Sets the secondary call type to IP.
sip	Sets the secondary call type to SIP.
none	Sets the secondary call type to none.

Feedback Examples

- `secondarycallchoice ip`
  returns
  `secondarycalltype ip`
- `secondarycallchoice get`
  returns
  `secondarycalltype ip`

See Also

You can set the primary call type using the primarycallchoice (deprecated) command on page 4-261 .

serialnum

Returns the serial number of the system.

Syntax

```
serialnum
```

Feedback Examples

- `serialnum`
  returns
  `serialnum 82065205E72EC1`

session

Names or finds an active API session.

Syntax

```
session name "session-name"
session find "session-name"
```

Parameter	Description
name	Names the current API session.
find	Finds an active API session for this system.
session-name	Unique string that identifies the session.

Feedback Examples

- `session name sessionone`
  returns
  `session name sessionone success`
- If entered again,
  `session name sessionone`
  returns
  `info: the supplied session name is already in use`
  `session name sessionone failed`
- `session find sessionone`
  `info: session sessionone attached`
- `session find sessiontwo`
  `info: session sessiontwo not connected`

setaccountnumber

Sets the account number when it is required for dialing out.

Syntax

```
setaccountnumber “account number”
```

Parameter	Description
“account number”	Number that is needed to validate the account before dialing out. To erase the current setting, omit this parameter.

Feedback Examples

- `setaccountnumber 1234`
  returns
  `setaccountnumber 1234`

Comments

The account number is saved in the Global Management System database and is generally assigned by the Global Management System administrator. The requireacctnumtodial command on page 4-272 and the validateacctnum command on page 4-327 must be enabled for this command to work. When you make a call, you will be prompted to enter your account number.

See Also

See the related requireacctnumtodial command on page 4-272 and validateacctnum command on page 4-327 .

setpassword

Sets the admin password for the Polycom HDX system local admin account.

Syntax

```
setpassword admin room "currentacctpasswd" "newacctpasswd"
```

Parameter	Description
admin	Specifies the Polycom HDX system local admin account.
room	Changes the room password.
"currentacctpasswd"	The current account password.
"newacctpasswd"	The new account password.

Feedback Examples

- `setpassword admin room 123 456`
  returns
  `password changed`
- `setpassword admin room '' 456`
  returns
  `password changed`
- `setpassword admin room 123 ''`
  returns
  `password changed`

Comments

If the account has no administrator room password, enter a pair of single quotes ('') to denote an empty password.

showpopup

Displays a message box in the user interface.

Syntax

```
showpopup “text to display”
```

Parameter	Description
“text to display”	Message to display to users. Enclose the text in quotation marks if it contains a space.

Feedback Examples

- `showpopup “The conference will resume in three minutes.”` returns
  `showpopup “The conference will resume in three minutes.”`
  and displays the message box in the user interface

Comments

Sending this command displays the message as a popup dialog in the user interface, along with an alert tone.

sleep

Puts the system in sleep mode within 15 seconds and returns sleep.

Syntax

```
sleep
sleep <register|unregister>
```

Parameter	Description
sleep	Puts the system in sleep mode if not followed by other parameters.
register	Registers for sleep or wake events.
unregister	Unregisters from sleep or wake events.

Feedback Examples

- `sleep`
  returns
  `sleep`
  and puts the system in sleep mode within 15 seconds
- `sleep register`
  returns
  `sleep registered`
- If entered again,
  `sleep register`
  returns
  `info: event/notification already active:sleep`
- `sleep unregister`
  returns
  `sleep unregistered`
- If entered again,
  `sleep unregister`
  returns
  `info: event/notification not active:sleep`

See Also

To wake the system from sleep mode, use the wake command on page 4-342 .

sleeptext

Sets or gets the text to be displayed with the logo for 15 seconds as the system goes into sleep mode.

Syntax

```
sleeptext get
sleeptext set [“text”]
```

Parameter	Description
`get`	Returns the current text.
`set`	Sets the text to be displayed on the screen saver when followed by the “`text`” parameter. To erase the current setting, omit “`text`”.
“`text`”	Screen saver text to be displayed when the system is in sleep mode. Enclose the text in quotation marks if it includes spaces.

Feedback Examples

- `sleeptext set`
  returns
  `sleeptext <empty>`
- `sleeptext set "Pick up the remote control to use the system"`
  returns
  `sleeptext "Pick up the remote control to use the system"`

sleeptime

Sets or gets the wait time value before the system goes to sleep and displays the screen saver.

Syntax

```
sleeptime <get|0|1|3|15|30|60|120|240|480>
```

Parameter	Description
get	Returns the current setting.
0|1|3|15|30|60|120|240|480	Sets the number of minutes from last user interaction to entering sleep mode. The default value is 3. A value of 0 indicates that the system will never go to sleep.

Feedback Examples

- `sleeptime 30`
  returns
  `sleeptime 30`

snmpadmin

Sets or gets the SNMP administrator name.

Syntax

```
snmpadmin get
snmpadmin set ["admin name"]
```

Parameter	Description
get	Returns the current setting.
set	Sets the administrator name when followed by the "admin name" parameter. To erase the current setting, omit "admin name".
"admin name"	SNMP administrator contact name. Character string. Enclose the character string in quotation marks if it includes spaces. Example: "John Admin"

Feedback Examples

- `snmpadmin set`
  returns
  `error: command needs more parameters to execute successfully`
- `snmpadmin set "John Admin"`
  returns
  `snmpadmin "John Admin"`
- `snmpadmin get`
  returns
  `snmpadmin "John Admin"`

Comments

After making a change, you must restart the system for the setting to take effect.

snmpcommunity

Sets or gets the SNMP community name.

Syntax

```
snmpcommunity get
snmpcommunity set ["community name"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP community name when followed by the "`community name`" parameter. To erase the current setting, omit the parameter.
"`community name`"	SNMP community name. Character string. Enclose the character string in quotation marks if it includes spaces.

Feedback Examples

- `snmpcommunity` set
  returns
  `snmpcommunity` <empty>
- `snmpcommunity` set Public
  returns
  `snmpcommunity` Public
- `snmpcommunity` get
  returns
  `snmpcommunity` Public

Comments

After making a change, you must restart the system for the setting to take effect.

snmpconsoleip

Sets or gets the SNMP console IP address.

Syntax

```
snmpconsoleip get
snmpconsoleip set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP console IP address when followed by the "`xxx.xxx.xxx.xxx`" parameter. To erase the current setting, omit the parameter.
"`xxx.xxx.xxx.xxx`"	IP address of the console.

Feedback Examples

- `snmpconsoleip set`
  returns
  `snmpconsoleip <empty>`
- `snmpconsoleip set 192.168.1.111`
  returns
  `snmpconsoleip 192.168.1.111`
- `snmpconsoleip get 192.168.1.111`
  returns
  `snmpconsoleip 192.168.1.111`

Comments

After making a change, you must restart the system for the setting to take effect.

snmplocation

Sets or gets the SNMP location name.

Syntax

```
snmplocation get
snmplocation set ["location name"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP location name when followed by the "`location name`" parameter. To erase the current setting, omit the parameter.
"`location name`"	SNMP location name. Enclose the location name in quotation marks if it includes spaces.

Feedback Examples

- `snmplocation set`
  returns
  `snmplocation <empty>`
- `snmplocation set "Mary_Polycom in United States"`
  returns
  `snmplocation "Mary_Polycom in United States"`
- `snmplocation get`
  returns
  `snmplocation "Mary_Polycom in United States"`

Comments

After making a change, you must restart the system for the setting to take effect.

snmpsystemdescription

Sets or gets the SNMP system description.

Syntax

```
snmpsystemdescription get
snmpsystemdescription set ["system description"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP system description when followed by the "`system description`" parameter. To erase the current setting, omit the parameter.
"`system description`"	SNMP system description.

Feedback Examples

- `snmpsystemdescription set`
  returns
  `snmpsystemdescription <empty>`
- `snmpsystemdescription set "videoconferencing system"`
  returns
  `snmpsystemdescription "videoconferencing system"`
- `snmpsystemdescription get`
  returns
  `snmpsystemdescription "videoconferencing system"`

Comments

After making a change, you must restart the system for the setting to take effect.

snmptrapversion

Sets or gets the SNMP trap version.

Syntax

```
snmptrapversion get
snmptrapversion set <v1|v2c>
```

Parameter	Description
get	Returns the current setting.
set	Sets the SNMP trap protocol that the system uses.
v1|v2c	SNMP trap version 1 or version 2c.

Feedback Examples

- `snmptrapversion set v1`
  returns
  `snmptrapversion v1`
- `snmptrapversion set v2c`
  returns
  `snmptrapversion v2c`
- `snmptrapversion get`
  returns
  `snmptrapversion v2c`

Comments

After making a change, you must restart the system for the setting to take effect.

soundeffectsvolume

Sets, gets, or tests the volume level of the ring tone and user alert tone on the system.

Syntax

```
soundeffectsvolume get
soundeffectsvolume set {0..10}
soundeffectsvolume test
```

Parameter	Description
`get`	Returns the current setting along with a test tone from the system at that volume level.
`set`	Sets the volume of sound effects. Requires a volume parameter in the range `{0..10}`.
`test`	Tests the volume of sound effects.

Feedback Examples

- `soundeffectsvolume set 6`
  returns
  `soundeffectsvolume 6`
- `soundeffectsvolume get`
  returns
  `soundeffectsvolume 6`
- `soundeffectsvolume test`
  returns
  `soundeffectsvolume test`
  and a tone is produced by the system

spidnum

Sets or gets the ISDN SPID numbers assigned to the BRI lines used by the system. This command is only applicable if you have a BRI network interface connected to your system.

Syntax

```
spidnum get <all|1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2>
spidnum set <1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2> ["spid number"]
```

Parameter	Description
get	Returns the current SPID number associated with a B channel of a particular line.
all	Returns SPIDs for all channels of all lines.
1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2	The line and B channel. Valid values are: 1b1BRI line 1, B channel 1 1b2BRI line 1, B channel 2 2b1BRI line 2, B channel 1 2b2BRI line 2, B channel 2 3b1BRI line 3, B channel 1 3b2BRI line 3, B channel 2 4b1BRI line 4, B channel 1 4b2BRI line 4, B channel 2
set	Sets the SPID number for a B channel line when followed by the "number" parameter. To erase the current setting, omit "number".
"spid number"	Numeric string. SPID numbers are generally provided by your network service provider.

Feedback Examples

- spidnum get all
  returns
  ```
  spidnum 1b1 7005551212
  spidnum 1b2 7005552323
  spidnum 2b1 7005553434
  spidnum 2b2 7005554545
  spidnum 3b1 7005555656
  spidnum 3b2 7005556767
  spidnum 4b1 7005557878
  spidnum 4b2 7005558989
  ```
  if 4 lines with channels 1b1 through 4b2 are attached in the above format.

- `spidnum set 1b1`
  returns
  `spidnum 1b1 <empty>`
- `spidnum set 1b1 7005551212`
  returns
  `spidnum 1b1 7005551212`

Comments

SPIDs generally apply only in the United States and Canada. If you are behind an internal phone system (PBX), SPIDs may not be required.

st

Sets or gets the st serial interface control signal (send timing: clock) setting. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
st <get|normal|inverted>
```

Parameter	Description
get	Returns the current setting.
normal	Sets the signal to normal (falling edge sends data).
inverted	Sets the signal to inverted (rising edge sends data).

Feedback Examples

- `st normal`
  returns
  `st normal`
- `st inverted`
  returns
  `st inverted`
- `st get`
  returns
  `st inverted`

Comments

The default setting is "`normal`".

subnetmask

Sets or gets the subnet mask of the system.

Syntax

```
subnetmask get
subnetmask set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`get`	Returns the current subnet mask.
`set`	Sets the subnet mask of the system when followed by the "`xxx.xxx.xxx.xxx`" parameter. To erase the current setting, omit "`xxx.xxx.xxx.xxx`".
"`xxx.xxx.xxx.xxx`"	Subnet mask of the system.

Feedback Examples

- `subnetmask set 255.255.255.0`
  returns
  `subnetmask 255.255.255.0`
- `subnetmask get`
  returns
  `subnetmask 255.255.255.0`

Comments

After making a change, you must restart the system for the setting to take effect.

sysinfo

Sets or gets registration for ISDN, IP, and gatekeeper status notifications.

Syntax

```
sysinfo <get|register|unregister>
```

Parameter	Description
`get`	Returns registration status.
`register`	Registers the shell session to receive ISDN, IP, and gatekeeper status notifications.
`unregister`	Unregisters the shell session for ISDN, IP, and gatekeeper status notifications.

Feedback Examples

- `sysinfo register`
  returns
  `sysinfo registered`
- `sysinfo unregister`
  returns
  `sysinfo unregistered`
- `sysinfo get`
  returns
  `sysinfo unregistered`

The following are examples of notifications of status changes in ISDN lines that may be returned after registering to receive sysinfo notifications.

- `linestate: isdnline[1] down`
- `linestate: isdnline[2] down`
- `linestate: isdnline[3] up`
- `linestate: isdnline[4] up`
- `linestate: isdnline[1] up`
- `linestate: isdnline[3] down`
- `linestate: isdnline[4] down`
- `linestate: isdnline[2] up`

systemname

Sets or gets the name of the system.

Syntax

```
systemname get
systemname set “system name”
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the system name to “`system name`”.
“`system name`”	Character string specifying the system name. Enclose the string in quotation marks if it includes spaces. Example: “`Polycom HDX Demo`”

Feedback Examples

- `systemname set “Polycom HDX Demo”`
  returns
  `systemname “Polycom HDX Demo”`
- `systemname set get`
  returns
  `systemname “Polycom HDX Demo”`

Comments

The first character must be a numeric (a digit) or alphabetic (a letter) character including foreign language characters. The name can be any combination of alphanumeric characters and may be up to 30 characters in length. The system name cannot be blank.

tcpports

Sets or gets the TCP ports on the system.

Syntax

```
tcpports get
tcpports set [{1024..49150}]
```

Parameter	Description
`set`	Sets the TCP ports when followed by a value from the range `{1024..49150}`. To erase the current setting, omit the value.
`get`	Returns the current TCP port setting.

Feedback Examples

- `tcpports set 3233`
  returns
  `tcpports 3233`
- `tcpports get`
  returns
  `tcpports 3233`

Comments

The **Fixed Ports** option on the Firewall screen must be selected for the **TCP Ports** option to be available.

techsupport

Sends your phone number to Global Management System technical support if your system is managed by the Global Management System.

Syntax

```
techsupport <"phone num">
```

Parameter	Description
“phone num”	Phone number at which the user of this system will be contacted. To obtain rapid assistance, include the area code with the phone number. Enclose the string in quotation marks if it includes spaces. Example: “408 555 2323”

Feedback Examples

- `techsupport “408 555 2323”`
  returns
  `techsupport will contact you at 408 555 2323`

Comments

The Support icon is visible only when the system is registered with the Polycom Global Management System.

teleareacode

Sets or gets the system's area code.

Syntax

```
teleareacode get
teleareacode set ["telephone_area_code"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the system's area code when followed by the "`telephone_area_code`" parameter. To erase the current setting, omit the "`telephone_area_code`" parameter.
"`telephone_area_code`"	System's area code.

Feedback Examples

- `teleareacode set`
  returns
  `teleareacode <empty>`
- `teleareacode set 408`
  returns
  `teleareacode 408`
- `teleareacode get`
  returns
  `teleareacode 408`

telenumber

Sets or gets the system's telephone number.

Syntax

```
telenumber get
telenumber set ["telephone_number"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the telephone number when followed by the "`telephone number`" parameter. To erase the current setting, omit the parameter.
"`telephone_number`"	System's telephone number. Enclose the string in quotation marks if it includes spaces. Example: "408 555 2323"

Feedback Examples

- `telenumber set`
  returns
  `telenumber <empty>`
- `telenumber set "408 555 2323"`
  returns
  `telenumber "408 555 2323"`
- `telenumber get`
  returns
  `telenumber "408 555 2323"`

telnetechoeol

Sets the echo end-of-line (EOL) characters to the default values of either the API echo or the serial port echo.

Syntax

```
telnetechoeol <get|crnl|nlcr>
```

Parameter	Description
get	Returns the current setting for the end of line echo characters.
crnl	Sets the echo EOL characters to <CR><LF>.
nlcr	Sets the echo EOL characters to <LF><CR>

Feedback Examples

- `telnetechoeol get`
  returns
  `telnetechoeol crnl`
- `telnetechoeol crnl`
  returns
  `telnetechoeol crnl`
- `telnetechoeol nlcr`
  returns
  `telnetechoeol nlcr`

timediffgmt

Sets or gets the time difference from where the system is installed and Greenwich Mean Time (GMT). This allows the Global Management System to view the local time of the managed system.

Syntax

```
timediffgmt <get|{-12:00..+12:00}>
```

Parameter	Description
get	Returns the current setting.
{-12:00..+12:00}	Sets the time difference from GMT to this value. +00:00 is GMT time.

Feedback Examples

- `timediffgmt -06:00`
  returns
  `timediffgmt -06:00 success`
- `timediffgmt get`
  returns
  `timediffgmt -06:00 success`

typeofservice

Sets or gets the type of service for Quality of Service.

Syntax

```
typeofservice <get|ipprecedence|diffserv>
```

Parameter	Description
`get`	Returns the current setting.
`ipprecedence`	Selects IP precedence service.
`diffserv`	Selects DiffServ service.

Feedback Examples

- `typeofservice diffserv`
  returns
  `typeofservice diffserv`
- `typeofservice ipprecedence`
  returns
  `typeofservice ipprecedence`
- `typeofservice get`
  returns either
  `typeofservice ipprecedence`
  or
  `typeofservice diffserv`

See Also

See the ipprecaudio, ipprecfecc, ipprecvideo command on page 4-187 and the diffservaudio, diffservfecc, diffservvideo command on page 4-98 .

udpports

Sets or gets the UDP ports on the system.

Syntax

```
udpports get
udpports set [{1024..49150}]
```

Parameter	Description
`get`	Returns the current UDP port setting.
`set`	Sets the UDP ports when followed by a value from the range `{1024..49150}`. To erase the current setting, omit the value.

Feedback Examples

- `udpports set 3230`
  returns
  `udpports 3230`
- `udpports get`
  returns
  `udpports 3230`

Comments

The Fixed Ports option on the Firewall screen must be selected for the UDP Ports option to be available.

unregisterall (deprecated)

Alias for the **all unregister** command.

Syntax

```
unregisterall
```

Feedback Examples

- `unregisterall`
  returns
  ```
  callstate unregistered
  camera unregistered
  linestate unregistered
  mute unregistered
  pip unregistered
  popup unregistered
  popupinfo unregistered
  preset unregistered
  screen unregistered
  vcbutton unregistered
  volume unregistered
  sleep unregistered
  phone unregistered
  video unregistered
  vcstream unregistered
  vc pod unregistered
  vc lan unregistered
  ```

See Also

This command is an alias for the preferred all unregister command on page 4-22 .

To register for user feedback, use the all register command on page 4-20 or the registerall (deprecated) command on page 4-267 .

usefixedports

Sets or gets the Fixed Ports configuration.

Syntax

```
usefixedports <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the use of Fixed Ports.
no	Disables the use of Fixed Ports.

Feedback Examples

- `usefixedports yes`
  returns
  `usefixedports yes`
- `usefixedports no`
  returns
  `usefixedports no`
- `usefixedports get`
  returns
  `usefixedports no`

usegatekeeper

Sets or gets the gatekeeper mode (off, specify, or auto).

Syntax

```
usegatekeeper <get|off|specify|auto>
```

Parameter	Description
`get`	Returns the current setting. Note: A gatekeeper is not required to make IP-to-IP LAN calls. In these situations, select the `off` option.
`off`	Select this option if no gatekeeper is required or if you make IP-to-IP LAN calls.
`specify`	Specifies a gatekeeper. If this option is selected, you must enter the gatekeeper IP address or name using the gatekeeperip command on page 4-139 .
`auto`	Sets the system to automatically find an available gatekeeper.

Feedback Examples

- `usegatekeeper off`
  returns
  `usegatekeeper off`
- `usegatekeeper specify`
  returns
  `usegatekeeper specify`
- `usegatekeeper auto`
  returns
  `usegatekeeper auto`
- `usegatekeeper get`
  returns
  `usegatekeeper auto`

See Also

See the gatekeeperip command on page 4-139 .

usepathnavigator

Sets or gets the Polycom PathNavigator™ mode, Polycom Readi*Manager*® SE200 mode, or Polycom Converged Management Application™ (CMA™) mode if the PathNavigator, Readi*Manager*, or Polycom CMA system is used with the Polycom HDX system.

Syntax

```
usepathnavigator <get|always|never|required>
```

Parameter	Description
`get`	Returns the current setting.
`always`	Always use the Conference on Demand feature available with the PathNavigator, ReadiManager, or Polycom CMA system to place a multipoint call. Never use the Polycom HDX system's internal multipoint capability.
`never`	Never use the Conference on Demand feature available with the PathNavigator, ReadiManager, or Polycom CMA system to place a multipoint call. Use the Polycom HDX system's internal multipoint capability instead.
`required`	This is the default. When this option is selected, the multipoint call is handled by the Polycom HDX system's internal multipoint capability if possible; otherwise, the multipoint call is handled through the Conference on Demand feature available with the PathNavigator, ReadiManager, or Polycom CMA system.

Feedback Examples

- `usepathnavigator always`
  returns
  `usepathnavigator always`
- `usepathnavigator never`
  returns
  `usepathnavigator never`
- `usepathnavigator required`
  returns
  `usepathnavigator required`
- `usepathnavigator get`
  returns
  `usepathnavigator required`

Comments

This option is only accessible if the PathNavigator, Readi*Manager*, or Polycom CMA system is used.

The PathNavigator uses the Polycom MGC™ and can handle video conferences with more participants and higher speeds than a Polycom HDX system's internal multipoint capability.

The PathNavigator, Readi*Manager*, and Polycom CMA systems support ad-hoc multipoint video conferencing through the Conference on Demand feature, which allows users to bring multiple endpoints together in a video conference on an unscheduled basis. It allows users to place multipoint video calls to remote participants by only using their names and/or the numbers that correspond to those remote locations.

useroompassword

Sets or gets the Use Room Password for Remote Access setting.

Syntax

```
useroompassword get
useroompassword <yes|no>
```

Parameter	Description
get	Returns the current setting.
no	Configures the system to use a separate room password and remote access password.
yes	Configures the system to use the same password for room and remote access.

Feedback Examples

- `useroompassword yes`
  returns
  `useroompassword yes`
- `useroompassword no`
  returns
  `useroompassword no`
- `useroompassword get`
  returns
  `useroompassword no`

v35broadcastmode

Sets or gets the V.35 broadcast mode. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
v35broadcastmode <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Turns on V.35 broadcast.
off	Turns off V.35 broadcast.

Feedback Examples

- `v35broadcast on`
  returns
  `v35broadcast on`
- `v35broadcast off`
  returns
  `v35broadcast off`
- `v35broadcast get`
  returns
  `v35broadcast off`

v35dialingprotocol

Sets or gets the V.35 dialing protocol. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
v35dialingprotocol <get|rs366>
```

Parameter	Description
get	Returns the current setting.
rs366	Enables RS-366 as the dialing protocol. At this time, RS-366 is the only supported dialing protocol on the system.

Feedback Examples

- `v35dialingprotocol rs366`
  returns
  `v35dialingprotocol rs366`
- `v35dialingprotocol get`
  returns
  `v35dialingprotocol rs366`

Comments

Selecting a dialing protocol is not needed if you are using your DCE to dial the call or if you have a dedicated connection to the far site.

v35num

Sets or gets the ISDN video numbers assigned to the system. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
v35num get <1b1|1b2>
v35num set <1b1|1b2> ["v35 number"]
```

Parameter	Description
get	Returns the current ISDN video number associated with a B channel of a particular line. Requires <1b1|1b2>.
1b1|1b2	B1 and B2 channels: 1b1 designates line 1, B channel 1 (B1). 1b2 designates line 1, B channel 2 (B2).
set	Sets the ISDN video number for a B channel line when followed by a "v35 number" parameter. To erase the current setting, omit the "v35 number" parameter. 1b1 is port 1 and 1b2 is port 2.
"v35 number"	Numeric string. This is the ISDN video number(s) provided by your network service provider.

Feedback Examples

- v35num set 1b1
  returns
  v35num 1b1 <empty>
- v35num set 1b2 7005551212
  returns
  v35num 1b2 7005551212
- v35num get 1b2
  returns
  v35num 1b2 7005551212

Comments

The 1b1 and 1b2 parameters follow the convention and nomenclature of the user interface and the isdnnum command on page 4-194 .

See Also

See the isdnnum command on page 4-194 .

v35portsused

Sets or gets the number of ports to use on the V.35/RS-449/RS-530 network interface module.

Syntax

```
v35portsused <get|1|1+2>
```

Parameter	Description
get	Returns the current setting.
1	Selects one port for one-channel calls.
1+2	Selects two ports for two-channel calls (2 x 56 kbps or 2 x 64 kbps).

Feedback Examples

- `v35portsused 1`
  returns
  `v35portsused 1`
- `v35portsused 1+2`
  returns
  `v35portsused 1+2`
- `v35portsused get`
  returns
  `v35portsused 1+2`

v35prefix

Sets or gets the V.35 dialing prefix. It assumes that a profile has already been selected.

Syntax

```
v35prefix get “valid speed”
v35prefix set “valid speed” [“value”]
```

Parameter	Description
get	Returns the current setting for “valid speed”.
set	Sets the V.35/RS-449/RS-530 prefix when followed by a “value” parameter. To erase the current setting, omit the “value” parameter.
“valid speed”	Valid speeds are 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 28x64, 1856, 1920, all. The parameter “all” lists all the available speeds and their associated dialing prefixes.
“value”	V.35/RS-449/RS-530 prefix, which is a function of your DCE. Consult the DCE user guide for information.

Feedback Examples

- `v35prefix set 56`
  returns
  `v35prefix 56 <empty>`
- `v35prefix set 112 ”#005”`
  returns
  `v35prefix 112 ”#005”`
  and associates the dialing prefix 005 with the speed 112
- `v35prefix get 112`
  returns
  `v35prefix 112 ”#005”`

See Also

See the v35profile command on page 4-325 .

v35profile

Sets or gets a V.35 profile associated with dialing through a DCE. It can also display all the settings (speed, prefix or suffix) of the current profile.

Syntax

```
v35profile
<get|adtran|adtran_isu512|ascend|ascend_vsx|ascend_max|avaya_mcu|
custom_1|fvc.com|initia|lucent_mcu|madge_teleos>
```

Parameter	Description
`get`	Returns the current profile.
`adtran|adtran_isu512|ascend|ascend_vsx|ascend_max|avaya_mcu|custom_1|fvc.com|initia|lucent_mcu|madge_teleos`	V.35/RS-449/RS-530 profile (equipment/manufacturer) available. Consult your DCE user guide for additional information on setting dialing profiles.

Feedback Examples

- `v35profile adtran_isu512`
  returns
  `v35profile adtran_isu512`
  selects adtran_isu512 as the profile
- `v35profile get`
  returns
  `v35profile adtran_isu512`

v35suffix

Sets or gets the V.35 dialing suffix. It assumes that a profile has already been selected.

Syntax

```
v35suffix get “valid speed”
v35suffix set “valid speed” [“value”]
```

Parameter	Description
get	Returns the current setting for valid speed.
set	Sets the dialing suffix when followed by a “value” parameter. To erase the current setting, omit the “value” parameter.
“valid speed”	Valid speeds are 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 28x64, 1856, 1920, all. The parameter “all” lists all the available speeds and their associated dialing prefixes.
“value”	The dialing suffix, which is a function of your DCE. Consult the DCE user guide for information.

Feedback Examples

- `v35suffix set 128`
  returns
  `v35suffix 128 <empty>`
- `v35suffix set 128 ”#4#2”`
  returns
  `v35suffix 128 #4#2`
  and associates the dialing suffix #4#2 with the speed 128
- `v35suffix get 128`
  returns
  `v35suffix 128 #4#2`

See Also

See the v35profile command on page 4-325 .

validateacctnum

Sets or gets the validation for the Global Management System account number that is used when dialing out.

Syntax

```
validateacctnum <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the Global Management System account number validation option.
no	Disables the Global Management System account number validation option.

Feedback Examples

- `validateacctnum yes`
  returns
  `validateacctnum yes`
- `validateacctnum no`
  returns
  `validateacctnum no`
- `validateacctnum get`
  returns
  `validateacctnum no`

Comments

When the call connects, the system verifies that the account exists with the Global Management System server. If the account does not exist, the call is disconnected.

This option is only available if **Required Account Number to Dial** is enabled.

vcbutton

Controls a content video source. It can also register or unregister the API session to receive notification of content events.

Syntax

```
vcbutton play {2..5}
vcbutton <get|stop|register|unregister>
vcbutton map <get|{2..5}>
vcbutton source get
```

Parameter	Description
`play`	Starts sending the content from the specified content video source. If no content video source is specified, starts sending content from the default content video source. Starts content from any content video source without the need to change source mapping and without needing to stop the currently playing content video source. Fails and does not stop the current content video source if the specified content video source is not valid. Stops the current content video source if the specified content video source is valid but is currently unavailable.
`{2..5}`	Specifies a content video source.
`get`	Returns the current setting (play or stop).
`stop`	Stops sending content from the content video source that is currently playing.
`register`	Registers the API session to receive notifications about content events.
`unregister`	Unregisters the API session to receive notifications about content events.
`map get`	Gets the content video source currently specified for control.
`map {2..5}`	Specifies the content video source to control. Note: This parameter is only necessary if no video source was specified when using the vcbutton play command.
`source get`	Gets the content video source that is currently playing.

Feedback Examples

If not registered for notifications:

- `vcbutton play 4`
  returns
  `vcbutton play 4`
  `vcbutton play succeeded`
  `camera near 4`

If registered for notifications:

- `vcbutton play 4`
  returns
  `Control event: vcbutton play`
  `Control event: vcbutton source 4`
  `Control event: vcbutton play`
  `vcbutton play 4`
  `vcbutton play succeeded`
  `camera near 4`
- `vcbutton play 5`
  returns
  `vcbutton play failed`
- `vcbutton play`
  returns
  `Control event: vcbutton play`
  `vcbutton play succeeded`
- `vcbutton play`
  returns
  `vcbutton play failed`
- `vcbutton play 2`
  returns
  `error: input 2 is not a content source`
  `vcbutton play failed`
- `vcbutton play 7`
  returns
  `error: invalid value! (valid ranges 2..6)`
  `vcbutton play failed`
- `vcbutton register`
  returns
  `vcbutton registered`
- `vcbutton stop`
  returns
  `Control event: vcbutton stop`
  `Camera near none`
  `vcbutton stop`
  `vcbutton stop succeeded`
- `vcbutton get`
  returns
  `vcbutton stop`
  `vcbutton get succeeded`

- `vcbutton source get`
  returns
  `vcbutton source get 1`
  `vcbutton source get succeeded`
- `vcbutton source get`
  returns
  `vcbutton source get none`
  `vcbutton source get succeeded`

Polycom recommends registering for notifications. If vcbutton register is used for notifications, the following responses occur.

- Pressing the play button at the far site
  returns
  `Control event: vcbutton farplay`
- Pressing the stop button on the local system
  returns
  `Control event: vcbutton stop`

Comments

The vcbutton stop command is global in Polycom HDX software version 2.0 or later. Previously, this command was specific to the content video source to which it was mapped.

vcraudioout

Enables, disables, or gets the **VCR Audio Out Always On** setting.

Syntax

```
vcraudioout <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables VCR Audio Out Always On.
no	Disables VCR Audio Out Always On.

Feedback Examples

- `vcraudioout yes`
  returns
  `vcraudioout yes`
- `vcraudioout no`
  returns
  `vcraudioout no`
- `vcraudioout get`
  returns
  `vcraudioout no`

vcrrecordsource

Sets or gets the VCR/DVD record source.

Syntax

```
vcrrecordsource get
vcrrecordsource <near|far|auto|content|content-or-near|
content-or-far|content-or-auto|none>
```

Parameter	Description
get	Returns the current setting.
near	Sets the VCR to record the near-site video source.
far	Sets the VCR to record the far-site video source.
auto	Sets the VCR to automatically record the current speaker in a point-to-point call.
content	Sets the VCR to record content, when presented.
content-or-near	Sets the VCR to record near-site video or content, when presented.
content-or-far	Sets the VCR to record far-site video or content, when presented.
content-or-auto	Sets the VCR to record the current speaker or content, when presented.
none	Sets the VCR to record nothing.

Feedback Examples

- `vcrrecordsource near`
  returns
  `vcrrecordsource near`
- `vcrrecordsource content-or-auto`
  returns
  `vcrrecordsource content-or-auto`
- `vcrrecordsource get`
  returns
  `vcrrecordsource content-or-auto`

version

Returns the current system's version information.

Syntax

```
version
```

Feedback Examples

- `version`
  returns
  `version "release 2.5 - 30Nov2008 11:30"`

vgaqualitypreference

Sets or gets the bandwidth split for people and content video.

Syntax

```
vgaqualitypreference get
vgaqualitypreference <content|people|both>
```

Parameter	Description
`get`	Returns the current setting.
`content`	Sets the VGA quality preference to content video.
`people`	Sets the VGA quality preference to people video.
`both`	Sets the VGA quality preference to both people and content video.

Feedback Examples

- `vgaqualitypreference people`
  returns
  `vgaqualitypreference people`
- `vgaqualitypreference content`
  returns
  `vgaqualitypreference content`
- `vgaqualitypreference both`
  returns
  `vgaqualitypreference both`
- `vgaqualitypreference get`
  returns
  `vgaqualitypreference both`

videocallorder

Sets the video call order of the specified protocol to the specified slot.

Syntax

```
videocallorder <isdn|h323|sip|gateway323> <1|2|3|4>
```

Parameter	Description
isdn	Specifies ISDN protocol.
h323	Specifies IP protocol.
sip	Specifies SIP protocol.
gateway323	Specifies H.323 gateway calling.
1|2|3|4	Sets the order in which the specified protocol is attempted when a video call is placed.

Feedback Examples

- `videocallorder h323 1`
  returns
  `videocallorder h323 1`
- `videocallorder isdn 2`
  returns
  `videocallorder isdn 2`

See Also

To set the dialing order for audio-only protocols, use the voicecallorder command on page 4-336 .

voicecallorder

Sets the voice call order of the specified protocol to the specified slot.

Syntax

```
voicecallorder <isdn_phone|pots> <1|2>
```

Parameter	Description
isdn_phone	Specifies ISDN phone line.
pots	Specifies analog phone line.
1|2	Sets the order in which the specified method is attempted when a voice call is placed. Positions 1-2 are relative and are shown as 3-4 in the user interface if video protocols are enabled.

Feedback Examples

- `voicecallorder pots 1`
  returns
  `voicecallorder pots 1`
- `voicecallorder isdn_phone 1`
  returns
  `voicecallorder isdn_phone 1`

See Also

To set the dialing order for video protocols, use the videocallorder command on page 4-335 .

volume

Sets or gets the call audio volume (not sound effects) on the system or registration for volume changes.

Syntax

```
volume <register|unregister>
volume <get|up|down|set {0..50}>
volume range
```

Parameter	Description
`register`	Registers to receive notification when the volume changes.
`unregister`	Disables register mode.
`get`	Returns the current volume level.
`up`	Increases the audio volume by 1.
`down`	Decreases the audio volume by 1.
`set`	Sets the volume to a specified level. Requires a volume setting from `{0..50}`.
`range`	Returns the valid volume range available to the user.

Feedback Examples

- `volume register`
  returns
  `volume registered`
- If entered again,
  `volume register`
  returns
  `info: event/notification already active:volume`
- `volume set 23`
  returns
  `volume 23`
- `volume up`
  returns
  `volume 24`
- `volume get`
  returns
  `volume 24`

Comments

Changes the call audio volume (not sound effects) on the system.

vortex

Sends commands to a Polycom Vortex mixer.

Syntax

```
vortex <0|1> mute <on|off>
vortex <0|1> forward "vortex_macro"
```

Parameter	Description
0|1	Specifies the serial port to which the Vortex mixer is connected.
mute	Sets the mute state for the Vortex mixer connected to the specified serial port.
on	Mutes the Vortex mixer.
off	Unmutes the Vortex mixer.
forward	Forwards the vortex_macro to the Vortex mixer connected to the specified serial port.
"vortex_macro"	Specifies the Vortex mixer macro command to send. For more information about these commands, refer to the Vortex documentation.

Feedback Examples

The response from the Vortex is returned in the following format:
`vortex <portnum> forward <vortexcmd>:<vortexresponse>`

- `vortex 0 forward FOOPING`
  returns
  `vortex 0 forward FOOPING:FOOPONG`
  if the Vortex responds and
  `vortex 0 forward FOOPING:failed`
  if the Vortex does not respond
- `vortex 1 mute on`
  returns
  `vortex 1 mute on`
  and mutes the Vortex connected to the second serial port on the back of the system

Comments

The Vortex commands are applicable when you have a Vortex mixer connected to a system. An API client can send these commands to control a Vortex mixer using the command format:

`vortex <portnum> forward <vortexcmd>`
where `<portnum>` is 0 if the Vortex is connected to the first serial port or 1 if the Vortex is connected to the second serial port, and `<vortexcmd>` is a Vortex-specific command. Whatever value is passed in this parameter will be sent to the Vortex.

waitfor

This command is used within script files or control panel programs to wait for a specific event before executing the next statement. It causes the API session to wait until a call being placed either connects or fails, or until system is ready to place a call (such as after a reboot waiting for the ISDN lines to come up).

Syntax

```
waitfor <callcomplete|systemready>
```

Parameter	Description
`callcomplete`	Causes the API session to wait until a call being placed either connects or fails.
`systemready`	Causes the system to return the message "`system is ready`" when the system is ready to make a call.

Feedback Examples

- `waitfor callcomplete`
  returns
  `waiting for call complete`
  and returns
  `call is complete`
  when the call either connects or fails
- `waitfor systemready`
  returns
  `waiting for system ready`
  and returns
  `system is ready`
  when the system is ready to make a call

Comments

This command can be used to synchronize a remote controller with the system. The API session echoes the message "`call complete`" when the call connects or is aborted.

wake

Wakes the system from sleep mode.

Syntax

```
wake
```

Feedback Examples

- `wake`
  returns
  `wake`
  and wakes the system from sleep mode

See Also

To put the system in sleep mode, use the sleep command on page 4-289 .

wanipaddress

Sets or gets the WAN IP address.

Syntax

```
wanipaddress get
wanipaddress set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`set`	Sets the WAN IP address when followed by the "`xxx.xxx.xxx.xxx`" parameter. To erase the current setting, omit the "`xxx.xxx.xxx.xxx`" parameter.
`get`	Returns the WAN IP address.
"`xxx.xxx.xxx.xxx`"	WAN IP address.

Feedback Examples

- `wanipaddress set 192.168.1.101`
  returns
  `wanipaddress 192.168.1.101`
- `wanipaddress get`
  returns
  `wanipaddress 192.168.1.101`

Comments

The **NAT Configuration** option on the Firewall screen must be set to **Auto**, **Manual**, or **UPnP** for this option to be available.

webmonitoring

Enables or disables the ability to view video from a Polycom HDX system via the web interface. This command can be used via Telnet port 24 only.

Syntax

`webmonitoring “remoteaccesspasswd” <yes|no>`

Parameter	Description
`“remoteaccesspasswd”`	Current remote access password.
`yes`	Allows Polycom HDX video to be viewed via the web interface.
`no`	Disables Polycom HDX video from being viewed via the web interface.

Feedback Examples

- `webmonitoring “1234” yes`
  returns
  `webmonitoring yes`
- `webmonitoring “1234” no`
  returns
  `webmonitoring no`

Comments

The `webmonitoring` setting can be controlled by a provisioning server. For this reason, provisioned systems do not allow modification to the `webmonitoring` setting.

`webmonitoring` has no 'get' operation. Use the remotemonenable command on page 4-271 instead.

If the system has no remote access password, enter a pair of single quotes ('') to denote an empty password.

webport

Sets or gets the port to use when accessing the system using the web interface.

Syntax

```
webport get
webport set "port"
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the web access port to "`port`".

Feedback Examples

- `webport set 80`
  returns
  `webaccessport 80`

- `webport get`
  returns
  `webaccessport 80`

Comments

If you change this from the default (port 80), you will need to include the port number with the IP address when you use the web interface to access the system. This makes unauthorized access more difficult. After making a change, you must restart the system for the setting to take effect.

whoami

Displays the same initial banner information as when the RS-232/Telnet session was started with the system.

Syntax

```
whoami
```

Feedback Examples

- whoami
  returns

```
Hi, my name is: Polycom HDX Demo
Here is what I know about myself:
Model: HDX9004
Serial Number: 82065205E72EC1
Software Version: 2.5
Build Information: root on domain.polycom.com
Contact Number: <empty>
Time In Last Call: 0:43:50
Total Time In Calls: 87:17:17
Total Calls: 819
SNTP Time Service: auto insync ntp1.polycom.com
Local Time is: Wed, 30 Nov 2008 10:41:46
Network Interface: NONE
IP Video Number: 192.168.1.101
Link-Local Address: fe80::2e0:dbff:fe07:2173/64
ISDN Video Number: 7005551212
MP Enabled:  AB1C-2D34-5EF6-7890-GHI1
H323 Enabled: True
H320 Enabled: False
HTTP Enabled: True
SNMP Enabled: True
```

Comments

The response can vary depending on your system configuration.

A

Room Design and Layout

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For clarity of discussion, we have divided this section into the following sub-sections:

- Room construction, including wall construction, windows and window treatments, ceilings and HVAC;
- Interior design and finishes;
- Furniture design, including placement and layout;
- Room acoustics and acoustic treatment; and
- Room lighting.

The initial layout and construction of the space affects all the elements that are discussed in other sections of this book [*Basics of Audio and Visual Systems Design*], including acoustic characteristics and performance, general and ambient light control, and overall comfort.

Room Requirements

We begin with general room requirements. The total floor space required for VC is much greater than we have become used to for general local presentation and meeting. In architectural terms it is not uncommon to find a rule-of-thumb applied that allows for up to 15 square feet of floor space per participant in a traditional presentation or meeting room. If there is a front-of-room presenter position at a podium, and if there is some use of in-room technology (projection devices, whiteboards, etc.), then this figure may increase to as much as 20 square feet of floor space per participant, but rarely any more than that.

It is here that we have our first conflict. In videoconferencing we have to consider not only the issues related to local viewing and hearing but also the issues of being seen and heard by people at the far-end of the connection. This

means that we must consider sight lines and angles of participant interaction that go beyond traditional presentation environments. As a rule we should allow not less than 30 square feet and generally not more than 45 square feet of floor space per participant in a videoconference space. Though two to three times what we are used to allowing, this amount ensures that local participants will see one another and the display of local and remote electronic images. It also ensures that participants at the far-end will see and hear everyone arriving at their location via the connection, and that all will see and hear at a level of quality that does not detract and, in the best deployment, even enhances the communications.

Having determined the required size of the space, we can move on to the actual renovation or construction of the space itself. Again the requirements here are generally less forgiving than those applied in local-only meeting spaces. In the most basic sense this is because, by sheer definition, at least some of the participants in a conference-based meeting are not actually in the room. As such, we cannot count on the typical human mechanisms (the human ears and brain and our ability to locate sound in three-dimensional space) to manage any acoustic anomalies.

If we are, for example, in a room that is adjacent to a double-door entry to the building, then knowing this we can take the inevitable doorway noise into account as we filter the sounds we hear both inside the meeting room and coming from that adjacent entryway. Within our own physical and local environment we have the ability to isolate local unwanted noise from local "sound of interest" (voices of other people, etc.), and place the unwanted noise in an inferior position in our conscious thought pattern. We are able to do this because we know where the noise is coming from and (usually) what is causing it. We may be annoyed by the noise, but we generally are able to ignore it. As soon as we add conferencing to the meeting equation, however, we add the element of electronic pickup and reproduction of all sounds. For the people at the far-end, the unwanted noise is much more difficult (if not impossible) to ignore. They do not have the ability to isolate it in three-dimensional space (the microphones eliminate the spatial reference) and they often do not know what is making the noise. The brain of the far-end participant will devote more and more conscious observation and thought energy to trying to work out these elements, in an attempt to isolate and finally "ignore" the unwanted sound. We have already stated that they cannot do this, however, due to the electronic separation between the locations. Thus they are left with an impossible task that takes up more and more thought energy, eroding the perceived quality of the spoken communication over time. Frustration and exasperation quickly set in, and the communication flow quickly falls apart.

This, then, is one reason we must pay even greater attention to the acoustic and visual issues for any presentation space that will be connected via conference to another. Minor, seemingly insignificant anomalies we often ignore in the local environment become significant impediments to smooth communication with people at the far-end of any connection. In short, we must always ask ourselves, "What does this look like and sound like to the people at the farend?"

In order to guarantee that the final conference environment will have a solid foundation, we begin with the construction of the walls, floors and ceilings for videoconference spaces.

Walls

Conference room walls should be built from slab to slab. That is, there should be no gaps from the concrete of one floor to the concrete of the next floor. Resilient, gypsum board mountings should be used to close any gaps. The thickness of the gypsum board should be 5/8" or more (one layer of 5/8" and one layer of 1/2" bonded together would be ideal) on the inside of the room, with 1/2" thick (or as required by local building codes) appropriate for the outside of the walls. There should always be a difference in thickness between the materials used on the inner versus the outer walls. That difference in thickness subdues mechanical coupling (vibration) between the two layers. A good overall wall thickness is 6". It is recommended that "offset stud" construction be used, typically a 6" header and footer with 3.5" verticals attached in an alternating pattern one toward the outside of the footer, the next toward the inside and so on.

Fiberglass dense batting or mineral rock wool, 4" to 6" thick (the equivalent of R-11 to R-13) should be placed in the wall space. The thickness of the batting is not critical. The critical aspect is that it must be loosely placed in the wall space, not compacted to fit. The resultant wall will have excellent acoustic isolation from the outside world. More significant acoustic isolation can be achieved by placing an additional barrier layer within the wall space. Typically this barrier will be made of a dense polymer material, about 1/8" thick, and the improvement regarding loss of sound transmitted through the wall will be roughly a factor of 10. These materials are available from a variety of manufacturers.

Windows

Windows usually present the equivalent of an acoustic nightmare (as well as altering the way a camera renders colors and brightness). They not only transmit room sound, but also allow unwanted outside noise to intrude on the conference space. In the event that windows cannot be avoided, it becomes essential that window treatment of some sort be used. This treatment should match the interior look and feel of the space, while providing a high level of sound and light block. Typically a heavyweight drape (24 ounces or more) of heavy fullness (not less than 6" fullness on not less than 8" centers per fold) is preferred. In all cases, the use of sheer draperies or standard vertical or horizontal blinds should be avoided, due to their inherent inefficiency in blocking sound and light, and the fine lines they create within the camera field of view.

Ceiling Tiles

These should be high-quality acoustic tiles, ideally 1"- thick compressed densecore fiberglass. An added benefit of this kind of ceiling tile is that it works well with the indirect lighting as specified elsewhere in this section. To reduce any extraneous noise from leaving or entering the room via the ceiling space, the ceiling tiles can be blanketed completely from the plenum side, with a minimum of 6"- thick unfaced dense fiberglass batting or mineral rock wool, (the equivalent of R-15 to R-19). Here again, a barrier layer will improve the performance, but all local building codes must be followed for allowable materials in the various aspects of room acoustic modifications. To make entry and exit from the ceiling space easier, the blanket and barrier do not need to rest on the ceiling tiles, but may be suspended above it.

Air Conditioning

It is critical that all air-handling equipment (blowers, heat exchangers, solenoid valves, etc.) be located outside the physical meeting room space. This will prevent the noise burden associated with such equipment from affecting the participants of any meetings held in the room. Location of air-handling equipment within the ceiling space of a conference room often renders that room unusable for video or audio-only conferencing.

The air vents should be of open construction to eliminate "wind noise" while the system is running. These vents normally are specified as "low-velocity" diffusers. The number of air vents within the room should be sufficient to maintain a consistent temperature throughout the space. All HVAC ducts and diffusers should be oversized for the general application in the space, with minimum 2' diameter insulated flexible ducts and matching 2' noise dampening diffusers generally best. All ducts should be installed with gradual bends and curves rather than rigid 90-degree corners. This will minimize "thunder" sounds as the initial air pushes through the ductwork and into the room.

There should be a thermostat to control this specific room system independently of the rest of the building, and that control should be located within the room.

Important: Allow an additional 5,000 BTU of cooling capacity for a standard "roll-about" singlemonitor VC system with extended in-room peripherals (PC, document camera, scan converter, etc.) and a minimum of 10,000 BTU for a dual display multimedia presentation system with large screen displays. For the comfort of the participants, the room must accommodate these heat loads, plus the heat load of a room full of people, with minimal temperature rise.

Interior Design and Finishes

Wall colors within the field of view of the camera have a significant impact on the far-end perception of the room video quality. Certain colors are better suited to video rooms than others. The electronics and software of the videoconferencing system "builds" the images at the far-end from a gray/blue reference image. When there is a minimal difference between the room background and the reference image color, the codec has an easier time turning the image into numbers, with the result that the far-end will see a much higher quality video presentation. In general, light gray with just a touch of blue seems to work best. For rooms that have marginal lighting, slightly darker colors are quite useful.

In keeping with these color recommendations, the acoustic panels (discussed elsewhere in this section) should be ordered in light colors such as silver-gray, quartz or champagne for panels within the camera field of view. For aesthetics, however, panels may be alternated in color along the wall.

Furniture

As we have noted, VC rooms should be slightly on the large side for the typical number of attendees. The placement of furniture should present a natural rapport with the videoconference system, but shouldn't preclude the local interaction of conference participants. Doorways used for access to the space usually should be within the view of one of the camera presets to prevent the perception from the far-end that people could come into their meeting unseen. Doorways should not, however, be in constant, direct view of the camera system, as this may cause unwanted distractions and movement of people in the picture field.

Any tables within the conference environment should have a light top surface. Glossy tops should be avoided, as should strong colors or any bold wood grain. If glossy or saturated color surfaces are unavoidable, then proper lighting can help reduce (but not necessarily eliminate) their ill effects. The best table surface color is a flat satin finish, in neutral gray. In cases where the worst possible surfaces are present, the proper surface color effect can be achieved by using a table covering, put in place only when the room is being used for videoconferencing. This will, however, create problems related to the use of access ports in the tables or movement of end-user items across the surface.

Acoustics

Additional general elements related to the interior finish details for the space include acoustics. In terms of ambient noise level, the acoustic design goal for any conference- enabled room is at least NC-30 (NoiseCriteria-30). This level of specification dictates a very quiet space (somewhere around 40-dBCSPL

ambient noise level). A room built to the description found elsewhere in this section will usually fall between NC-30 and NC-35. The actual NC value is not critical; what is important is that the room be built with the intent and care required to achieve the low noise rating. Typically in architectural design, a site evaluation and analysis are required to certify the noise performance of a given space. The quieter the room, the easier it is to hear others in the same room as well as be heard by others who are participating via conference connection to a far-end location (or locations).

Almost every conference room of medium to large size (larger than 12'x15') requires some level of acoustic treatment to provide good speech-rendering to other conference sites. The quality differences lie in the areas of intelligibility and consistency of loudness as presented to the far-end. While the people at the far-end may hear the sounds coming to them, it may be hard for them clearly to distinguish all of the vowels, consonants, inflections and nuances of actual human speech communication. (We all know that it is not simply what you say but how you say it—i.e., the inflections and intonations—that makes the difference in perceived meaning in human communications.)

Good audio practice dictates that the treated surfaces be composed of at least two nonparallel walls. And, as the VCS hardware is a potential source of distracting fan noises, the walls to be treated should include the wall immediately behind the VCS hardware, whenever this hardware is within the conference room proper. To help prevent meeting audio from leaking into adjoining hallways or offices, the walls along those areas also should be treated.

Approximately 50 percent of the wall area needs be covered with acoustic panels. The type recommended is 1" thick compressed, dense-core fiberglass, fabric-covered, or equivalent, with a SABIN (sound absorption index) value of 0.9 average. This specification is sometimes referred to as NRC (noise reduction coefficient). If reduction of sound passing through is required, then an additional barrier layer is laminated to the dense-core material, usually 3/8" thick fiber compression board. The barrier layer is placed against the existing wall material, then the acoustic absorption panels are placed on the interior-room side of that. The barrier panels will have a SABIN of 0.9, but will have an additional specification of an STC (sound transmission coefficient) of 20. STC is a measure of the amount of reduction in loudness of sound passing through the material. Having an STC rating of 20 means there is a factor of 10 reduction in the amount of sound passing through that material. A high-quality conference room wall usually has an STC of 60 or more—that is, less than 1/1,000 of the sound in the room leaks through the wall.

Room Lighting

The brightness of the lighting in a videoconference room plays an important role in determining the far-end view of the meeting. When there are low to moderate amounts of light—20fc to 35fc (footcandles), typical office lighting—the distance range of "in focus" objects (depth-of-field) usually is

only 2′ or 3′ from nearest in-focus to furthest in-focus. With bright light (70fc or more) the range of in-focus objects can more than double. Participants at the far-end will see more people in sharp focus, and the codec will have an easier time encoding the image.

Bright standard direct fluorescent lighting has the undesirable side effect of being harsh for the local participants. In addition, the direct down lighting casts significant "drop shadows." The result is undue stress among participants.

The best plan for videoconferencing is to use indirect lighting for 80 to 85 percent of the light, and evenly distributed direct lighting for the remaining 15 to 20 percent. The indirect light will help minimize shadows on the faces of the participants, and make the room more comfortable for viewing the far-end on the TV monitor. The direct light can be used to create backlight separation between foreground and background objects or surfaces.

There should be not less than 55fc and ideally as much as 75fc of light (770lux) on the faces of the participants in the facial field as viewed by the camera in the conference space. The light should be completely even across the field of measure or view, and of one consistent color temperature.

To best meet these requirements, indirect fluorescent lighting most often is recommended. This type of lighting works by using the upper walls and ceiling as diffuse reflectors for the light. The usual recommended color temperature for these is 3,000 to 3,800 degrees Kelvin. If there is a significant quantity of outdoor light entering the room, the lamps should be more than 5,500 degrees Kelvin.

Light Fixtures

The light fixtures generally recommended for indirect lighting are available from a number of manufacturers. They typically are three-tube, 8" oval indirect up-lights, though they may take the form of chandelier-style pendant lights, wall sconces, cove lights or flushmounted specialized troughs. Many manufacturers work closely with contractors and lighting designers to ensure that the correct light levels and shadow-free zones are designed into the room, especially when used for videoconferencing. Lamps for these fixtures are available in a variety of specified color temperatures from numerous manufacturers, including Sylvania, General Electric and Osram/Phillips. Indirect fixtures are available in a number of different designs or "looks," and can be purchased in configurations that will complement and not detract from the interior design of the space.

Lighting layout recommendations and determination of the number of fixtures needed are handled either by the architectural design firm or by submitting a complete floor plan, including reflected ceiling, walls and furniture placement, to fixture vendors. The vendors will analyze the plans and return a finished lighting layout to the customer, detailing the number of fixtures, placement and required wiring.

It is important to remember that the use of traditional meeting room downcans—even those that have color-corrected light sources—for any lighting in the field of view that may include human faces is to be avoided at all costs. These will result in extremely uneven fields of light, or pools, and heavy, unnatural shadows on the faces of the participants.

Room Preparation Conclusion

When we follow the above guidelines we dramatically improve the odds for success in the final deployment of live bi-directional conference-based human communications. An added benefit is that this approach dramatically enhances the effectiveness of the room as it operates for more traditional meetings and presentations. The environment is more comfortable and flexible, and less dependent on specialized electronics for "fixing" deficiencies in the environment.

Audio Elements

Once the space is prepared, we can focus on integration of the various audiovisual tools within the environment: audio, video and control.

Audio Input

The primary input device for the audio portion of any conference system is the microphone. Elsewhere in this book [*Basics of Audio and Visual Systems Design*] we have discussed how these devices operate within a given acoustic environment. We turn now to a short discussion of how these elements operate within a conference environment, where such factors as "three-to-one" rules and "critical distance" often are pushed to the limit or violated entirely.

When sound travels in a room, it follows "the inverse square law." This means that the sound level heard at a microphone drops by a factor of four every time the distance doubles. Another important consideration in room audio design is the concept of "critical distance," or the distance at which the loudness of the room background noise plus reverberation is less than one tenth of the loudness of voices getting to a particular microphone. (This definition is the result of research conducted by Don and Carolyn Davis. that is referenced in the chapter "Designing for Intelligibility" in the Handbook for Sound Engineers.[1])

1. Davis, Don and Carolyn. "Designing for Intelligibility" in Handbook for Sound Engineers: The New Audio Cyclopedia, ed. Glen Ballou (Indianapolis: Howard Sams & Co., 1991), 1279-1297.

As an example, we will work with a room having an ambient noise level of approximately 60dBA-SPL. A person speaking in a normal voice is 72dBA-SPL at about 2′ distance. At 4′ the loudness drops to approximately 66dBA-SPL. This already is farther than the critical distance criteria allow, given the ambient noise level. At 8′ distance, a normal speaking voice is approximately 60dBA-SPL. Now the voice energy and the room background noise are about equal. For "send" audio systems in a room to work correctly, therefore, the room noise level would have to be below 40-45dBA-SPL at the microphones at all times. This gives us some measure by which we can begin to plan the microphone array within a space, including selection based on pickup pattern, sensitivity, noise rejection and signal-to-noise in relation to the ambient noise floor or level within the space. The good news is that a room designed and built as described in this section will provide an acoustic space where almost any properly configured and installed audio system can operate with very good results.

Perhaps the most difficult issue for any room designer or system planner is actual microphone placement within the space. Given the fact that many people view conference table space as sacred (to be used for papers, laptops, coffee cups and other end-user items), there often is a great deal of pressure to place the local microphones on the ceiling instead of on the table surface. But this approach must be taken with great caution. We have already seen the dramatic impact of changes in the distance between people (their mouths) and the microphone. Ceiling systems generally place microphones farther away from the participants' mouths, not closer; critical distance calculations may eliminate ceiling placement from consideration for this reason alone. In addition, the ceiling surface generally is one of the noisiest areas of the room. Proximity to HVAC ducts and vents, attachment of tiles and runners to building members that are prone to vibration and shaking, and proximity to noise from other spaces migrating through the plenum make this area one of the least desirable for placement of microphones. This doesn't, however, keep people from looking at this broad open surface as the best place for microphones, to "get them off the table."

If ceiling placement is chosen, the system planner must select the components with great care from a manufacturer that specializes in this type of audio voice reinforcement. The manufacturer must be skilled in live audio and capable of installing the components (that is, being both able and willing to locate microphones at precisely measured distances from speakers, and locating those speakers at precisely measured intervals from each other and from the walls) to extremely tight tolerances. The system provider must fully inform the endusers of the potential downside effects of this approach. In any event, simply mounting a standard tabletop microphone on the ceiling tiles or implementing this solution in an ambient noise environment of 45dBA-SPL or greater will all but guarantee costly failure. No amount of post-microphone processing will fix the problems.

Audio Output

For conference communication we do not really care about producing the thundering roar of jet aircraft engines, or other sounds reproduced on TV or in the movies. We are interested in reproducing the human voice. The tone, intonation, pitch and level of people speaking from the far-end should sound as much as possible like the sound they would make if they were speaking in the room. Given what has been covered in other sections of this book [*Basics of Audio and Visual Systems Design*], we will touch base here on a couple of simple, basic elements of the speaker technology we deploy in the conference room. These basics fall into three subcategories: direction, power and range/frequency response.

Direction

As human beings, we feel most comfortable when the voice we hear appears to come from the same direction as the image of the person speaking. This means that reliance on ceiling speakers alone is not an ideal practice when the system is used for videoconferencing. In many small and medium-sized systems, front-firing speakers alone can provide proper direction and adequate coverage. Larger rooms (greater than 12'x15') probably need both front-firing and side or top-fill speakers in order to maintain proper coverage at nominal power levels.

In planning systems for larger rooms, we need to take advantage of the HAAS effect. Basically stated, this is the human brain's interpretation of sound direction when the same sound arrives at the ear from two or more directions within a certain time period. We attribute the direction of the sound to the direction from which the sound is first perceived, even if it is mixed with that same sound arriving from a completely different direction, as long as the two (or more) instances of the sound are within about 30ms of one another. Since sound travels faster electronically than it travels through the open air we may need to add audio delay to the side firing or ceiling speaker arrays in order to keep the primary perceived point source as the front of room/front-firing speakers.

Power

Power is a function of loudspeaker efficiency and total available system power. Most speakers operate in a power range that is broader than the range in which they operate without distortion. For the purpose of conference communication, we are interested in sound that has little or no distortion. Sound that is reproduced accurately (with no distortion) will most accurately represent the voice of the people from the far-end (our primary goal). Accurate reproduction also will aid the echo-cancellation circuitry in the system, minimizing the amount of echo that the system sends back to the people at the far-end, and thereby increasing perceived ease of intelligibility and understanding. Remember that any distortions present in the playback audio system—whether harmonic, amplitude (gain compression) or temporal (time

delays)—will be recognized by the echo canceller as "new audio information," and it will send those distortions to the far-end, perhaps wreaking havoc on the system audio quality. In short, speaker power should be matched to overall audio subsystem power. The speakers should provide adequate coverage and be able to present approximately 80 to 85dBA-SPL (continuous) at the local site with the system operating at nominal power utilization, and have a peak reserve of 15 to 20dB before distortion.

Range/Frequency Response

The human ear is able to hear sounds in a very wide range of frequencies (as low as 70Hz and as high as 12,000Hz). The human voice is able to produce sounds in a narrower range (100Hz to 8,000Hz). Most spoken communication occurs, however, in a range that is only 150Hz to about 6,000Hz. This means that we need to select speakers that operate with ideal performance in a fairly narrow range for human voice (as opposed to speakers used for music, that may have ranges of 20Hz to 20,000Hz). We must also be alert to the crossover characteristics of the speakers we select. Many coaxial and paraxial speakers have their crossover within the middle audio frequencies, thereby inducing potential distortion within the spoken frequency range and creating anomalies within the system that hinder voice communication.

Video Elements

As a general rule, any display used in a videoconferencing environment should be sized for the number of attendees, the physical distances involved and the type of material presented onscreen. The screen size should allow for clear and easy viewing at the various distances experienced within the room. A measure of required screen size that often is applied to projection technology is: no closer than 1.5 times the diagonal measure and no farther than 7 times that measure. Nobody should have to sit closer than 2 times the screen diagonal measure, nor farther than 8 times that measure.

Direct viewed tube-type displays (monitors) almost always are sharpest and brightest in a videoconferencing environment. "Retro-projector cabinet" displays (which look like largescreen TVs) are next in sharpness and brightness, and "front-screen" projectors come in last. Glare and uncontrolled ambient room lighting adversely affect the quality of the image most with front-screen projectors and least with direct view tubes. A very limited number of frontscreen projection systems have sufficient brightness and contrast to be useful in a properly lit videoconference room.

Video Projection for Use in Videoconference

Many installations make use of video projection devices. The most important thing to remember in the planning of video projection for a videoconference space is that front projection is vastly inferior to rear projection. Front projection systems are less expensive and easier to implement, but the conflicting interest between the camera and the projection display makes this form of display a very poor choice. Front projection setups operate best when the lighting in the room is dimmed or doused. When this is done, the videoconference cameras can no longer operate, since they require even, bright, color-corrected light. A direct conflict between these two technologies is clear. In the event that a rear projection room cannot be set aside, retro-projection units can be purchased from a number of manufacturers. These units normally are available in sizes ranging from 40" to 72" diagonal measure. To display high-quality video while maintaining optimum lighting for interactive video meetings will require a projector of the "light-valve" or DLP™ class.

Regardless of the exact type of projector selected and the exact nature of "front versus rear," there are certain essential rules for projector placement. The goal in projection is to get the image beam to aim directly into the audience's eyes. In Western cultures the average distance from the floor to a seated person's eye is 4'. That distance becomes the target for the direct beam of the projector. Again keep in mind that front projection should be avoided except in the most extreme cases. If it is employed at all it must be used with an extremely bright projector (2,500 lumens or greater for any space smaller than 25'x40').

Cameras

There usually is a "main" or "local people" camera positioned on top center of the display, so that it can "see" the participants and anything necessary at the sides of the room, using pan and tilt features. If individual presentations may be made from the side or "front of audience" area of the room, an additional camera should be located at the back of the room, also mounted to allow a view of the presenters when necessary. Some cameras contain an active camera pointing system that also can be used effectively, given proper care in the mounting of the camera assembly. The area immediately surrounding the camera assembly needs to be acoustically "dead" to ensure that the voice tracking and pointing algorithms work correctly. This is another reason to pay close attention to the acoustic environment and acoustic treatment of any space intended for use with this type of camera system.

If local presentation is blended with VC for any events, we must consider the needs of the presenter who will not be "facing" the local image or inbound image displays used by the main body of the local audience. One or two monitors (and a camera) should be mounted at the back of the "audience-end" of the room, with the horizontal centerline at approximately 5' from the floor for ease of presentation interaction between the presenter and the group(s) at the farend(s). Remember that, with the exception of PC-based information that is not in a standard composite narrowband video format, any information we

wish to “show” or “view” must be translated to video, most often with some sort of camera mechanism. Document cameras, 35mm slide-to-video units, video scanners and scan conversion devices all are designed to take one format of source material and convert it to a standard video signal that can be digitized, shipped to the far-end(s), and converted back to composite video for display. Which devices are selected and how they are used depends entirely on the needs and goals of the end-users of the system(s) and the format of their source materials.

Room Control Elements

To give all participants the easiest use of the room for any and all presentation or conference purposes, a fully integrated room controller is recommended. It is important that one controller operate all devices in the room so that only one user interface needs to be learned by those managing the facility. The common controller also makes it much easier to expand and enhance room capabilities over time by adding or upgrading equipment. A proper room controller can operate and coordinate the use of lighting, curtains, displays, audio devices, VCRs and slide projectors, as well as all the conferencing equipment, including any network-related control needed. In lieu of a complete control system, a limited functionality controller can be located at the presentation interface panel to control the switching and routing of the computer graphics and configure the overhead camera video paths.

It is strongly advised that at least 20 percent of the time spent developing a videoconferencing room be devoted to this important sub-system, as it will complete the integration of the conference and presentation environment.

And remember that simpler is always better. People do not pay for technology. They pay for the benefits that technology can bring. The doorway to those benefits is a simple, straightforward and intuitive user control.

B

Status Messages

Status Display

The call status can be displayed in a number of ways. The getcallstate command on page 4-153 returns a table listing the status, speed, and dialed number of current calls.

To display real-time status on individual B channels (incoming or outgoing calls), either register the API session with the callstate command on page 4-64, or start an outbound call with the dial command on page 4-93. These two commands will cause the system to re-direct the B channel status messages to the session which has issued one of these two commands. For example, if the RS-232 device issues a `dial` command, then call status is directed to the RS-232 port; if a later session on a Telnet port issues a `dial` command, then call status is also directed to that Telnet port.

B Channel Status Message Example

The following output example is for B channel status messages, where:

cs	Indicates call status for one B channel.
RINGING	Indicates a ring-in or ring-out and is equivalent to a 25% blue sphere on the graphical user interface.
CONNECTED	Is equivalent to a 50% yellow sphere.
BONDING	Indicates the bonding protocol is operational on the channel and is equivalent to a 75% orange sphere.
COMPLETE	Is equivalent to a 100% green sphere.

Feedback Examples

- dial manual 384 5551212 ISDN
  returns
  ```
  Dialing manual
  Dialing 5551212 384 none ISDN
  cs: call[0] chan[0] dialstr[95551212] state[RINGING]
  cs: call[0] chan[0] dialstr[95551212] state[CONNECTED]
  cs: call[0] chan[0] dialstr[95551212] state[BONDING]
  cs: call[0] chan[0] dialstr[95551212] state[COMPLETE]
  cs: call[0] chan[1] dialstr[95551212] state[RINGING]
  cs: call[0] chan[1] dialstr[95551212] state[CONNECTED]
  cs: call[0] chan[2] dialstr[95551212] state[RINGING]
  cs: call[0] chan[3] dialstr[95551212] state[RINGING]
  cs: call[0] chan[2] dialstr[95551212] state[CONNECTED]
  cs: call[0] chan[3] dialstr[95551212] state[CONNECTED]
  cs: call[0] chan[4] dialstr[95551212] state[RINGING]
  cs: call[0] chan[5] dialstr[95551212] state[RINGING]
  cs: call[0] chan[4] dialstr[95551212] state[CONNECTED]
  cs: call[0] chan[5] dialstr[95551212] state[CONNECTED]
  cs: call[0] chan[1] dialstr[95551212] state[BONDING]
  cs: call[0] chan[2] dialstr[95551212] state[BONDING]
  cs: call[0] chan[3] dialstr[95551212] state[BONDING]
  cs: call[0] chan[4] dialstr[95551212] state[BONDING]
  cs: call[0] chan[5] dialstr[95551212] state[BONDING]
  cs: call[0] chan[0] dialstr[95551212] state[COMPLETE]
  cs: call[0] chan[1] dialstr[95551212] state[COMPLETE]
  cs: call[0] chan[2] dialstr[95551212] state[COMPLETE]
  cs: call[0] chan[3] dialstr[95551212] state[COMPLETE]
  cs: call[0] chan[4] dialstr[95551212] state[COMPLETE]
  cs: call[0] chan[5] dialstr[95551212] state[COMPLETE]
  active: call[0] speed[384]
  ```
- hangup video 0
  returns
  ```
  hanging up video call
  cleared: call[0] line[1] bchan[0] cause[16]
  dialstring[95551212]
  cleared: call[0] line[2] bchan[0] cause[16]
  dialstring[95551212]
  cleared: call[0] line[0] bchan[0] cause[16]
  dialstring[95551212]
  cleared: call[0] line[1] bchan[1] cause[16]
  dialstring[95551212]
  cleared: call[0] line[2] bchan[1] cause[16]
  dialstring[95551212]
  cleared: call[0] line[0] bchan[1] cause[16]
  dialstring[95551212]
  ended call[0]
  ```

- listen video
  returns
  listen video registered

  listen video ringing // there is an incoming call, auto answer is on
  cs: call[0] chan[0] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[0] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[0] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[0] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[1] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[1] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[2] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[3] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[2] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[3] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[6] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[6] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[4] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[5] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[4] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[5] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[7] dialstr[7005551212] state[RINGING]
  cs: call[0] chan[7] dialstr[7005551212] state[CONNECTED]
  cs: call[0] chan[1] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[2] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[3] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[6] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[4] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[5] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[7] dialstr[7005551212] state[BONDING]
  cs: call[0] chan[0] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[1] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[2] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[3] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[6] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[4] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[5] dialstr[7005551212] state[COMPLETE]
  cs: call[0] chan[7] dialstr[7005551212] state[COMPLETE]
  active: call[0] speed[512]

C

Polycom HDX 9000 Series Specifications

Back Panel Information

Refer to the Administrator's Guide for Polycom HDX Systems at www.polycom.com/videodocumentation for back panel views of Polycom HDX systems and for details about the various connections available on each Polycom HDX back panel connector.

Inputs/Outputs

Audio Specifications

Characteristic	Value
Maximum Input Level 0 dBFS for Audio Input 4	+12 dBV (4.0 V_{RMS}), ±1 dB
Maximum Input Level 0 dBFS for Audio Input 3 (VCR/DVD)	+12 dBV (4.0 V_{RMS}), ±1 dB
Maximum Input Level 0 dBFS for Audio Input 1 (External Input, Line Level)	+12 dBV (4.0 V_{RMS}), ±1 dB
Maximum Input Level 0 dBFS for Audio Input 1 (External Input, MIC Level) Not supported on Polycom HDX 9006 systems.	-20 dBV, ±1 dB
Input Impedance Audio Input 4 Differential	20 k, ±5% Ohms

Characteristic	Value
Input Impedance Audio Input 3 (VCR/DVD) Differential	 20 k, ±5% Ohms
Input Common-Mode Rejection Ratio Balanced Inputs, Common-Mode Amplitude ≥ 1 dBFS	 >60 dB, 20 Hz to 22 kHz
Maximum Output Level Balanced Outputs (≥ 10 k Load)	 +12 dBV (4.0 V_{RMS}), ±1 dB
Output Impedance Balanced Outputs	 150, ±5% Ohms
Signal-to-Noise Ratio	>90 dB, A-weighted
Dynamic Range	>90 dB
Crosstalk and Feed-Through	≤ 90 dB, 20 Hz to 22 kHz
Frequency Response Balanced Inputs, Relative to 997 Hz	 +0.5, -3 dB, 20 Hz to 50 Hz ±1 dB, 50 Hz to 20 kHz +0.5, -3 dB, 20 kHz to 22 kHz
Total Harmonic Distortion + Noise vs. Frequency -1 dBFS Input Level -20 dBFS Input Level	 -80 dB, 20 Hz to 22 kHz -70 dB, 20 Hz to 22 kHz
Phantom Power DC Voltage Level, Relative to Shield Termination DC Operating Current Fault Current Source Impedance Phantom Power is not supported on Polycom HDX 9006 systems.	 +48 V_{DC} ±4 V 10 mA 16 mA 6.8 k, ±1%

DTMF Dialing

The Polycom HDX 9000 series systems generate the following tip/ring signal levels:

- Low-frequency tone: -10.2 dBV, -8.0 dBm when AC termination of the line is 600 Ohms
- High-frequency tone: -8.2 dBV, -6.0 dBm when AC termination of the line is 600 Ohms

- The system seizes the line and waits 1.5 seconds. The number is then dialed with a 80 ms tone period followed by a 80 ms silence period for each digit.

Remote Control

This section provides information about the IR signals for Polycom HDX systems.



This information is provided for reference only. Polycom claims no responsibility or liability for programmed third-party remote control devices.

Notes

- Wake up – 2.6 ms on; 2.6 ms off
- 0–559 µs (22 pulses at 38 KHz) on; 845 µs (33 pulses at 38 KHz) off
- 1–845 µs (33 pulses at 38 KHz) on; 1192 µs (46 pulses at 38 KHz) off
- EOM–559 µs (22 pulses at 38 KHz) on
- System Code consists of a User ID field (upper nibble) and the Polycom Vender Code (lower nibble) with value 0x5. The default User ID value is 0x3, so the default System Code value is 00110101 or 0x35.
- Parity is a 2-bit field consisting of a parity bit (b1) and a toggle bit (b0). Parity is even.
- Inter-burst timing is 2200 pulse times at 38.062 KHz or 57.8 ms
- 38.062 KHz signal is at 1/3 duty cycle to LED
- Multi-bit fields are transmitted most significant bit first
- Bits are labeled b0..bn, where b0 is the least significant bit

Protocol is: <Wake up> + <System Code> + <Key Code> + <Parity> + <EOM>

Key Name	Key Code	Key Code	Parity
#	1100	0CH	Even
*	1011	0BH	Odd
0	110000	30H	Even
1	110001	31H	Odd
2	110010	32H	Odd

Key Name	Key Code	Key Code	Parity
3	110011	33H	Even
4	110100	34H	Odd
5	110101	35H	Even
6	110110	36H	Even
7	110111	37H	Odd
8	111000	38H	Odd
9	111001	39H	Even
Auto	11001	19H	Odd
Call	100101	25H	Odd
Call/Hang Up	11	03H	Even
Camera	11110	1EH	Even
Colon	101111	2FH	Odd
Delete	100010	22H	Even
Dial String	0	00H	Even
Directory	11010	1AH	Odd
Dot	100001	21H	Even
Down Arrow	110	06H	Even
Far	10001	11H	Even
Fast Forward	101011	2BH	Even
Feet Down	10110	16H	Odd
Feet Up	11000	18H	Even
Hang Up	100110	26H	Odd
Home	11011	1BH	Even
Info (Help)	10100	14H	Even
Keyboard	100011	23H	Odd
Left Arrow	1001	09H	Even
Low Battery	10111	17H	Even
Menu (Back)	10011	13H	Odd
Mute	111010	3AH	Even
Near	1111	0FH	Even

Key Name	Key Code	Key Code	Parity
Option	101000	28H	Even
Pause	101101	2DH	Even
PIP	11101	1DH	Even
Play	101001	29H	Odd
Power	100111	27H	Even
Preset	11111	1FH	Odd
Record	101110	2EH	Even
Return	111	07H	Odd
Rewind	101100	2CH	Odd
Right Arrow	1010	0AH	Even
Slides (Graphics)	10010	12H	Even
Snapshot (Snap)	10101	15H	Odd
Stop	101010	2AH	Odd
Up Arrow	101	05H	Even
Volume Down	111100	3CH	Even
Volume Up	111011	3BH	Odd
Zoom In	1101	0DH	Odd
Zoom Out	1110	0EH	Odd

RS-232 Serial Interface

The RS-232 serial port is implemented by an FPGA-based UART (Universal Asynchronous Receiver/Transmitter) that supports the following values.

Mode	Baud Rate	Parity	Stop Bits	Data Bits	Flow Control
Control	9600 (default), 14400, 19200, 38400, 57600, 115200	None	1	8	Off
Camera PTZ	9600 (default), 14400, 19200, 38400, 57600, 115200	None (Sony), Even (Polycom EagleEye HD camera)	1	8	Off
Closed Caption	9600 (default), 14400, 19200, 38400, 57600, 115200	None	1	8	Off
Vortex Mixer	9600 (default), 14400, 19200, 38400, 57600, 115200	None	1	8	Off (default), On
Pass Thru	9600 (default), 14400, 19200, 38400, 57600, 115200	None (default), Even, Odd	1 (default), 2	8	Off (default), On
Polycom Annotation	9600	None	1	8	Off
Interactive Touch Board	9600	None	1	8	Off

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